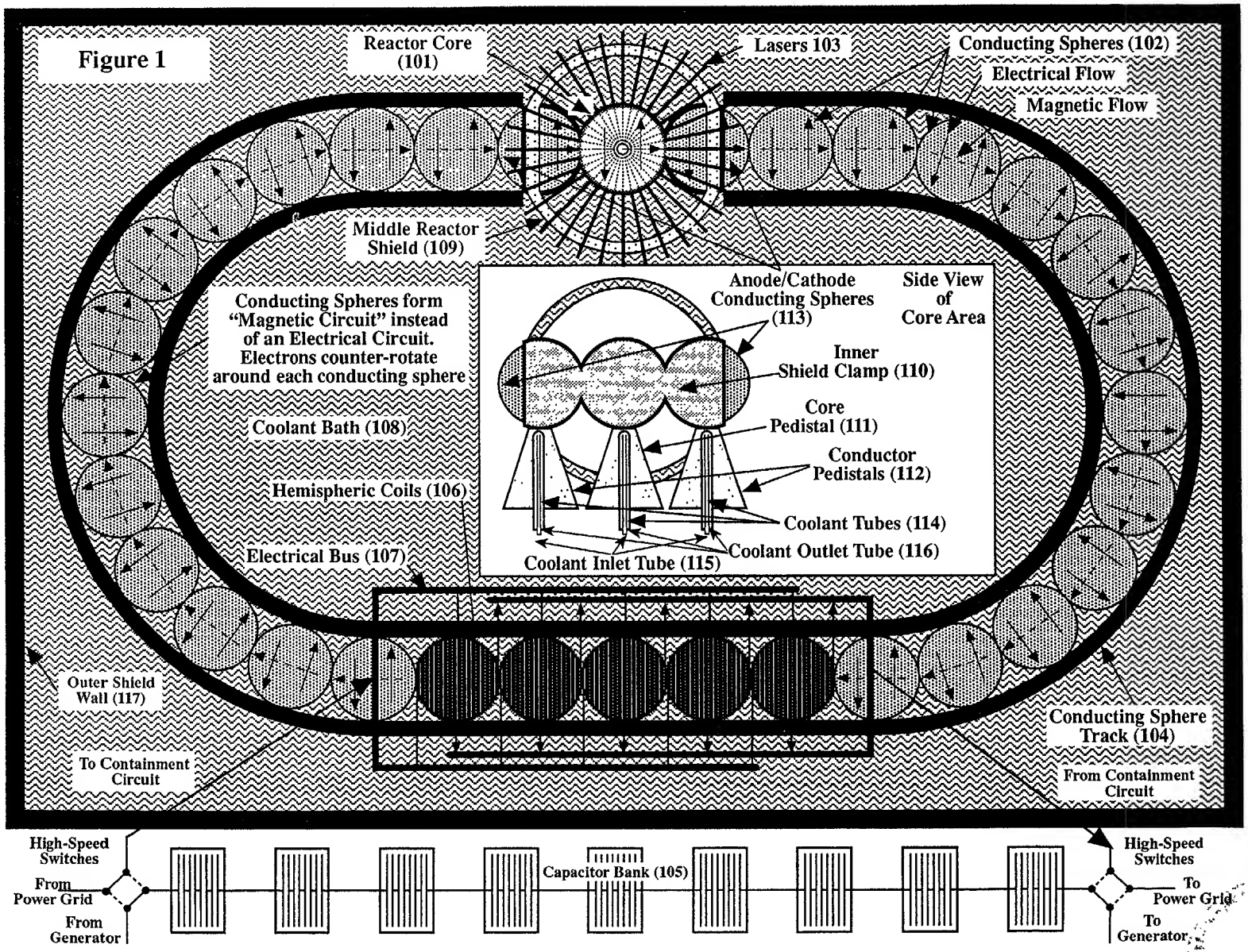


Figure 1
Reactor Core (101)
Lasers 103
Conducting Spheres (102)
Electrical Flow
Magnetic Flow
Middle Reactor Shield (109)
Conducting Spheres form "Magnetic Circuit" instead of an Electrical Circuit. Electrons counter-rotate around each conducting sphere
Coolant Bath (108)
Hemispheric Coils (106)
Electrical Bus (107)
Anode/Cathode Conducting Spheres (113)
Side View of Core Area
Inner Shield Clamp (110)
Core Pedistal (111)
Conductor Pedistals (112)
Coolant Tubes (114)
Coolant Outlet Tube (116)
Coolant Inlet Tube (115)
Outer Shield Wall (117)
To Containment Circuit
Conducting Sphere Track (104)
From Containment Circuit
High-Speed Switches
From Power Grid
From Generator
Capacitor Bank (105)
High-Speed Switches
To Power Grid
To Generator

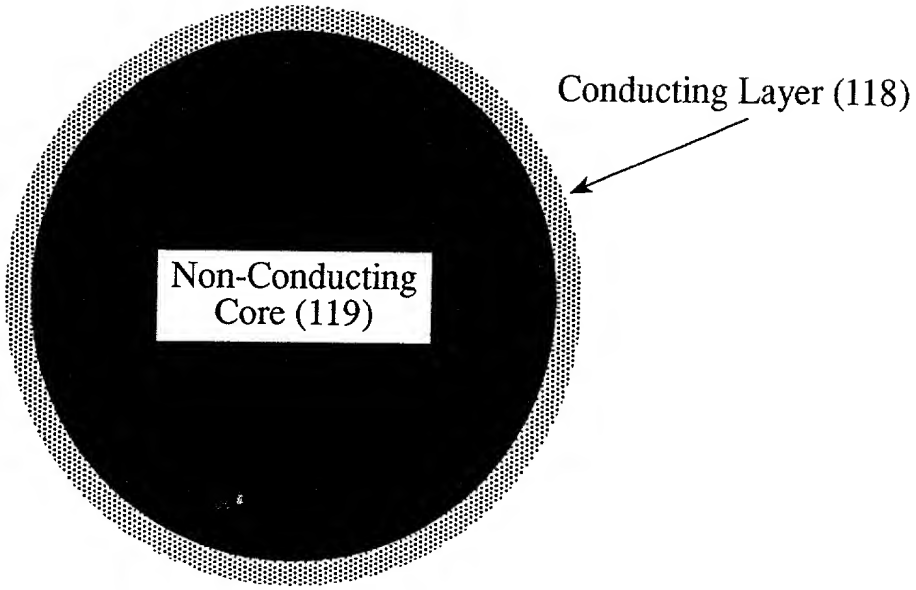


Figure 2

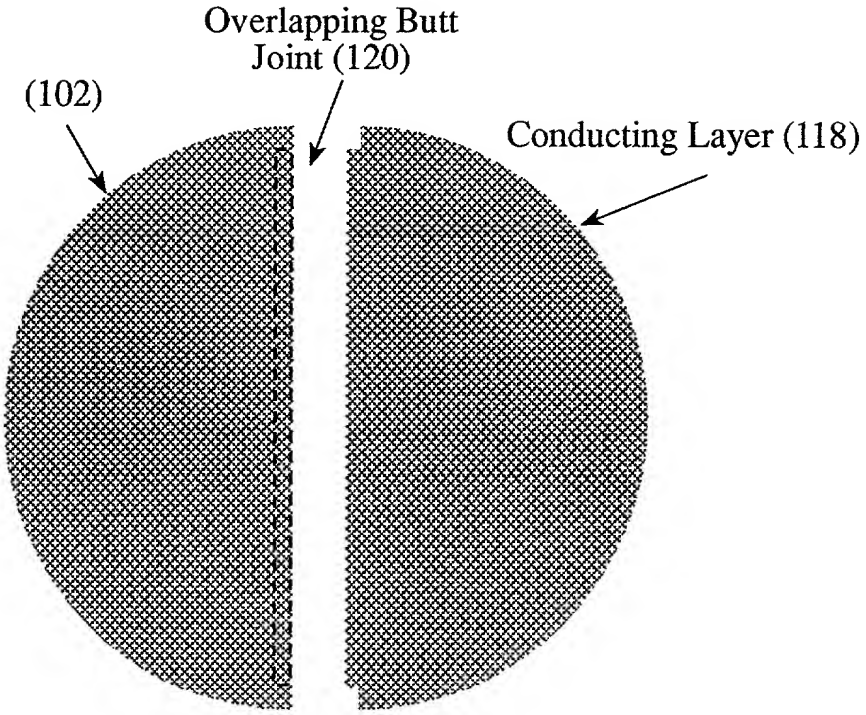


Figure 3

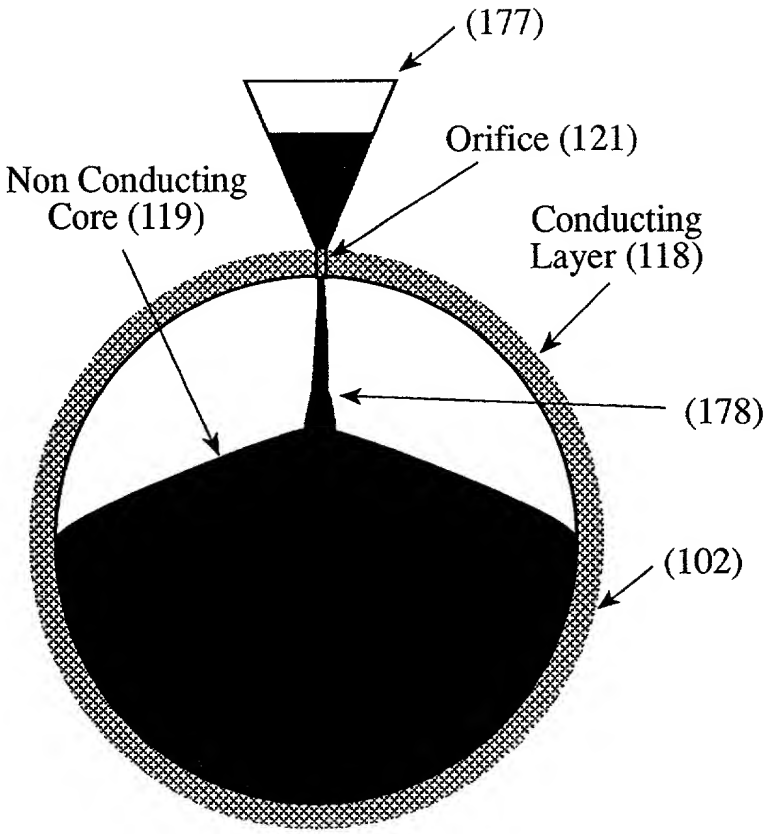

(177)
Orifice (121)
Non Conducting
Core (119)
Conducting
Layer (118)
(178)
(102)

Figure 4

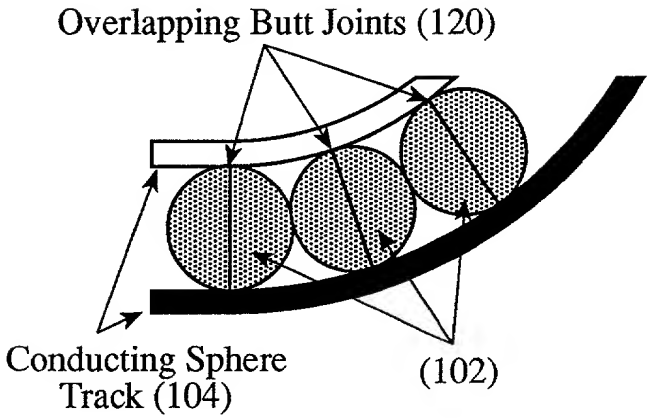

Overlapping Butt Joints (120)
Conducting Sphere
Track (104)
(102)

Figure 5

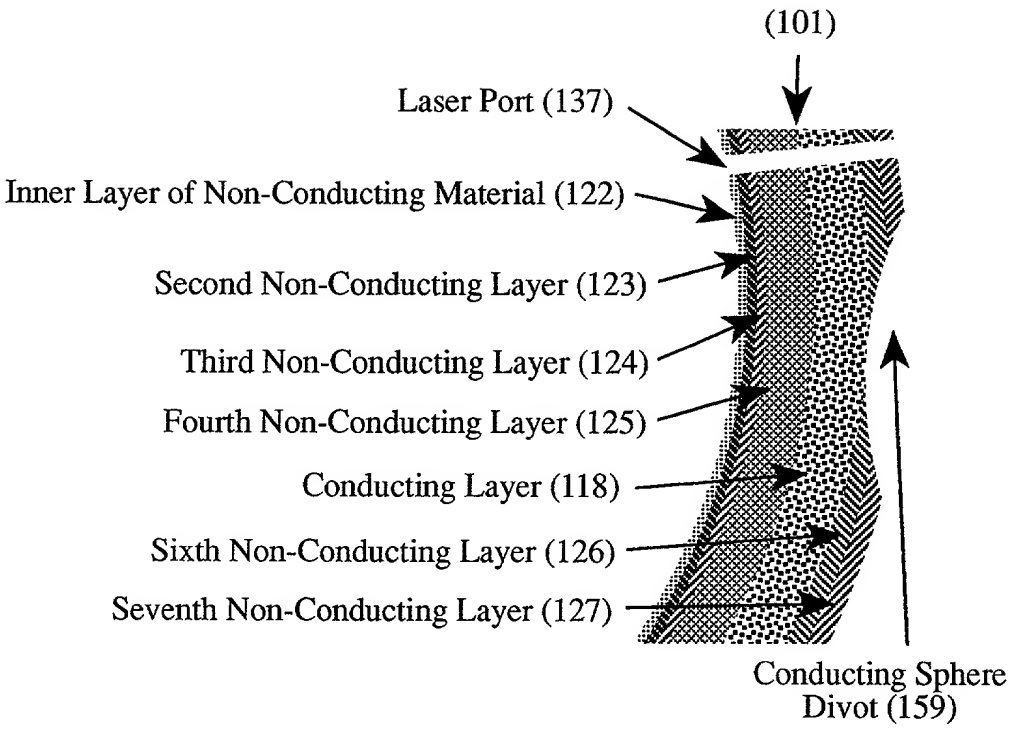

(101)
Laser Port (137)
Inner Layer of Non-Conducting Material (122)
Second Non-Conducting Layer (123)
Third Non-Conducting Layer (124)
Fourth Non-Conducting Layer (125)
Conducting Layer (118)
Sixth Non-Conducting Layer (126)
Seventh Non-Conducting Layer (127)
Conducting Sphere
Divot (159)

Figure 6

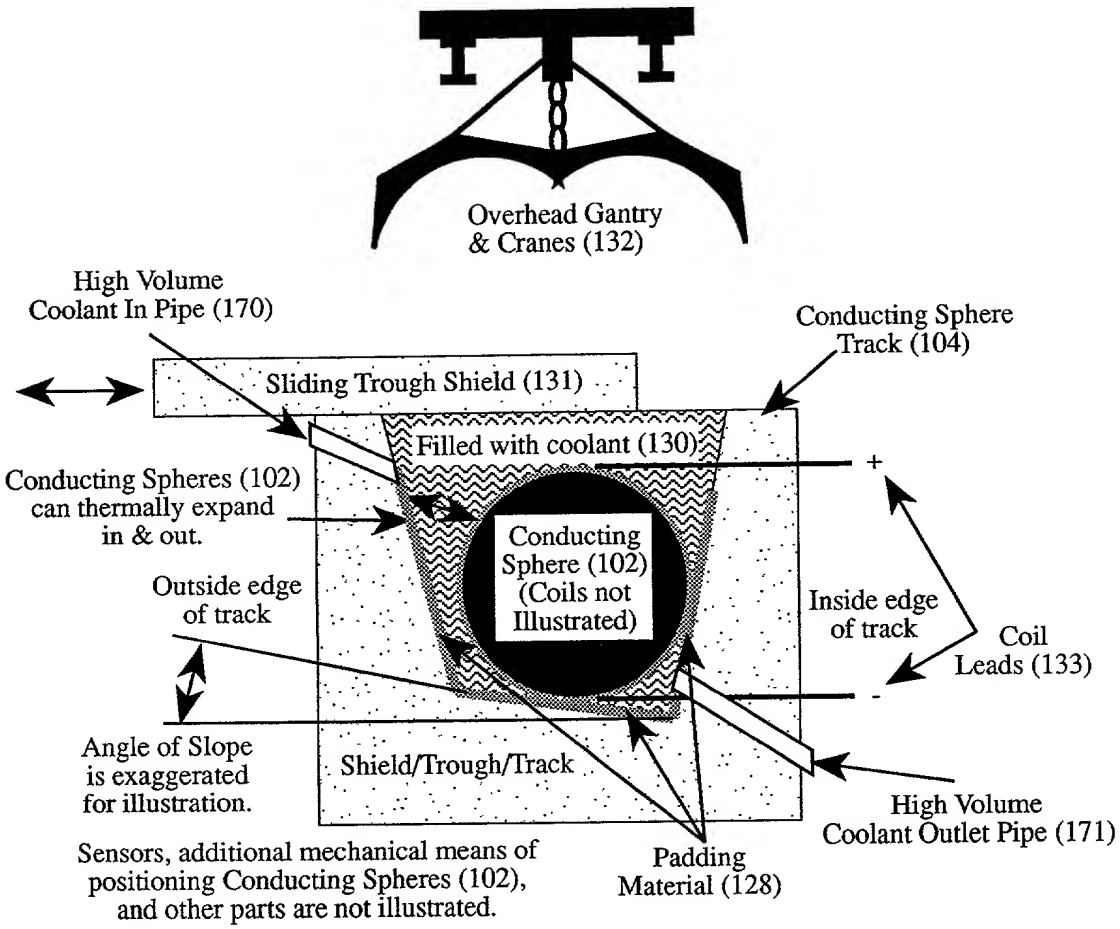

Overhead Gantry
& Cranes (132)
High Volume
Coolant In Pipe (170)
Conducting Sphere
Track (104)
Sliding Trough Shield (131)
Filled with coolant (130)
Conducting Spheres (102)
can thermally expand
in & out.
Conducting
Sphere (102)
(Coils not
Illustrated)
+
Outside edge
of track
Inside edge
of track
Coil
Leads (133)
-
Angle of Slope
is exaggerated
for illustration.
Shield/Trough/Track
High Volume
Coolant Outlet Pipe (171)
Sensors, additional mechanical means of
positioning Conducting Spheres (102),
and other parts are not illustrated.
Padding
Material (128)

Figure 7

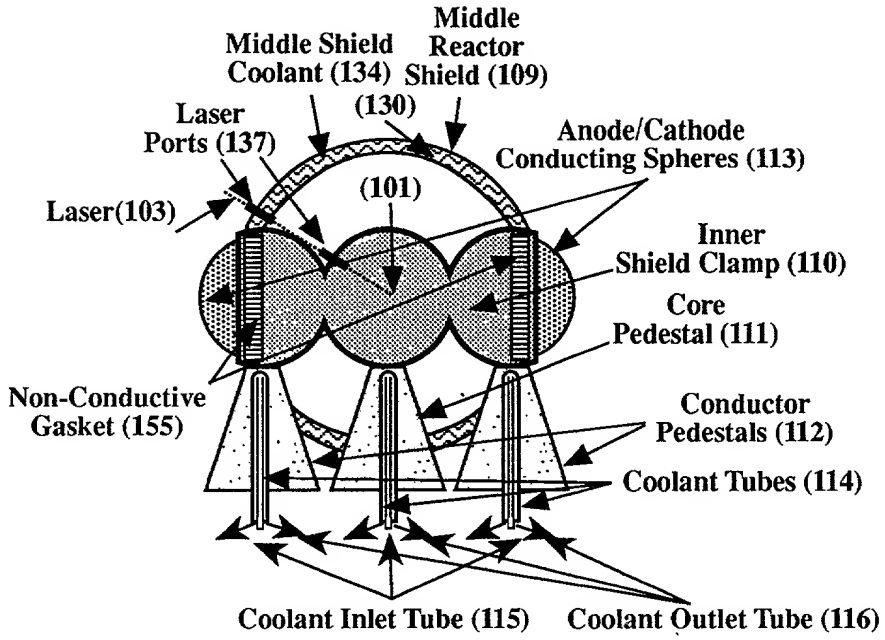

Middle Shield Coolant (134)
Middle Reactor Shield (109)
(130)
Laser Ports (137)
Anode/Cathode Conducting Spheres (113)
(101)
Laser(103)
Inner Shield Clamp (110)
Core Pedestal (111)
Non-Conductive Gasket (155)
Conductor Pedestals (112)
Coolant Tubes (114)
Coolant Inlet Tube (115)
Coolant Outlet Tube (116)

Figure 8

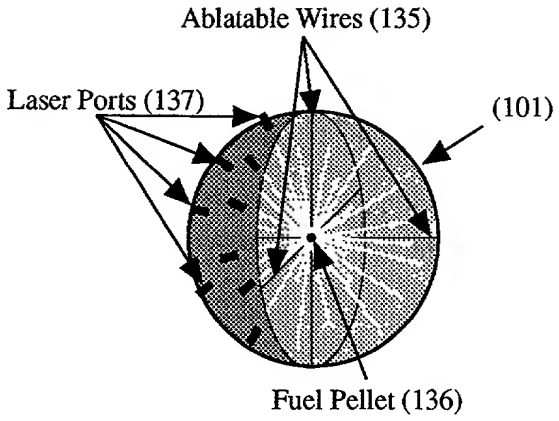


Figure 9

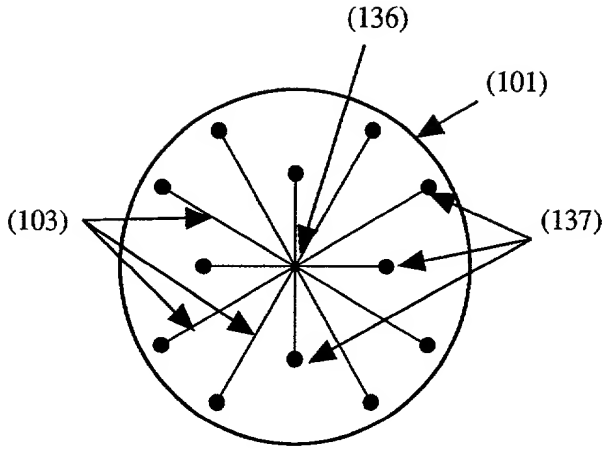


Figure 10

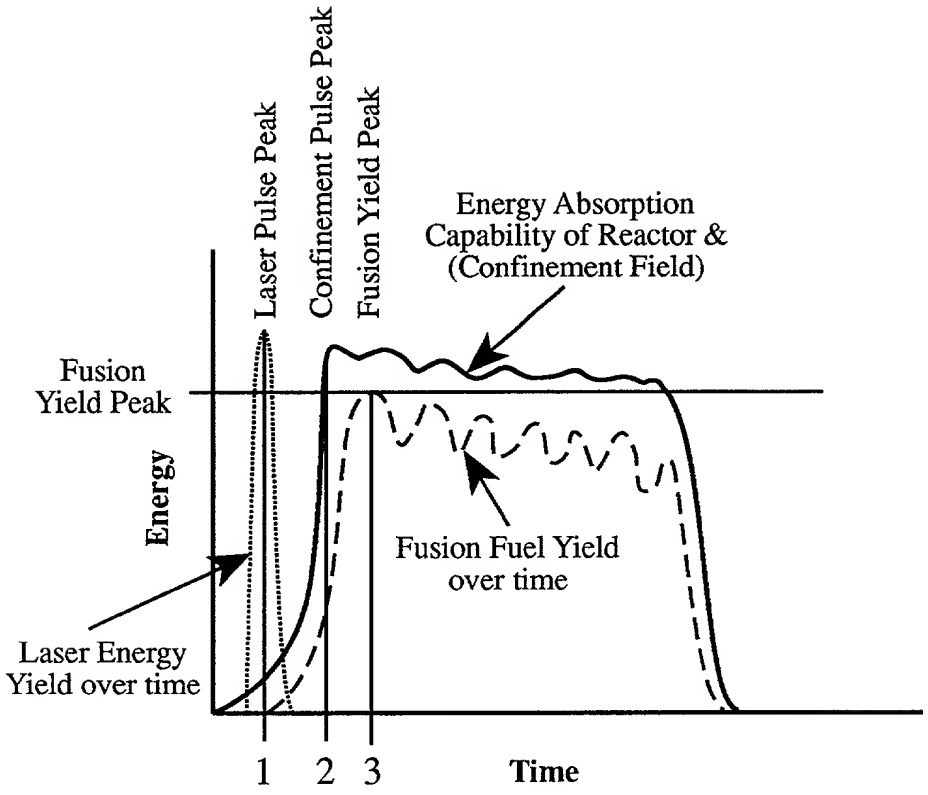

Laser Pulse Peak
Confinement Pulse Peak
Fusion Yield Peak
Energy Absorption
Capability of Reactor &
(Confinement Field)
Fusion
Yield Peak
Energy
Fusion Fuel Yield
over time
Laser Energy
Yield over time
1
2
3
Time

Figure 11

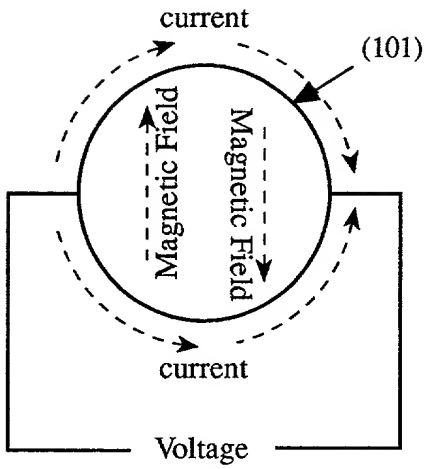

current
(101)
Magnetic Field
Magnetic Field
current
Voltage

Figure 12

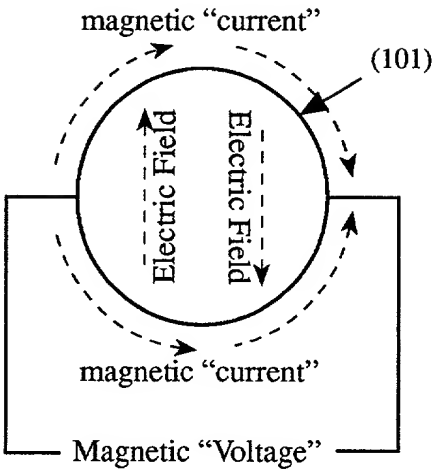

magnetic "current"
(101)
Electric Field
Electric Field
magnetic "current"
Magnetic "Voltage"

Figure 13

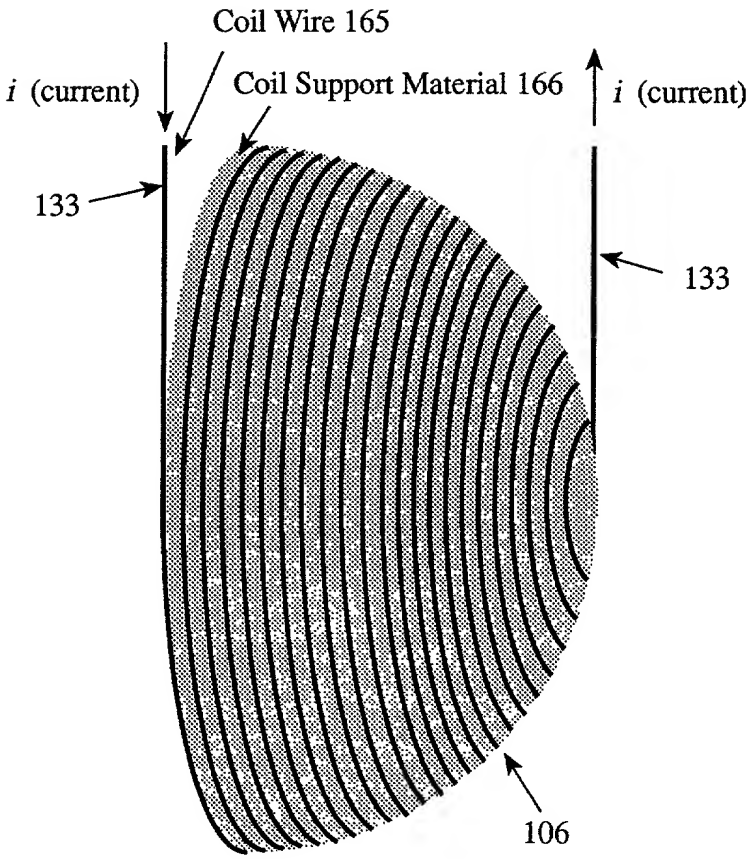

Coil Wire 165
i (current)
Coil Support Material 166
i (current)
133
133
106

Figure 14

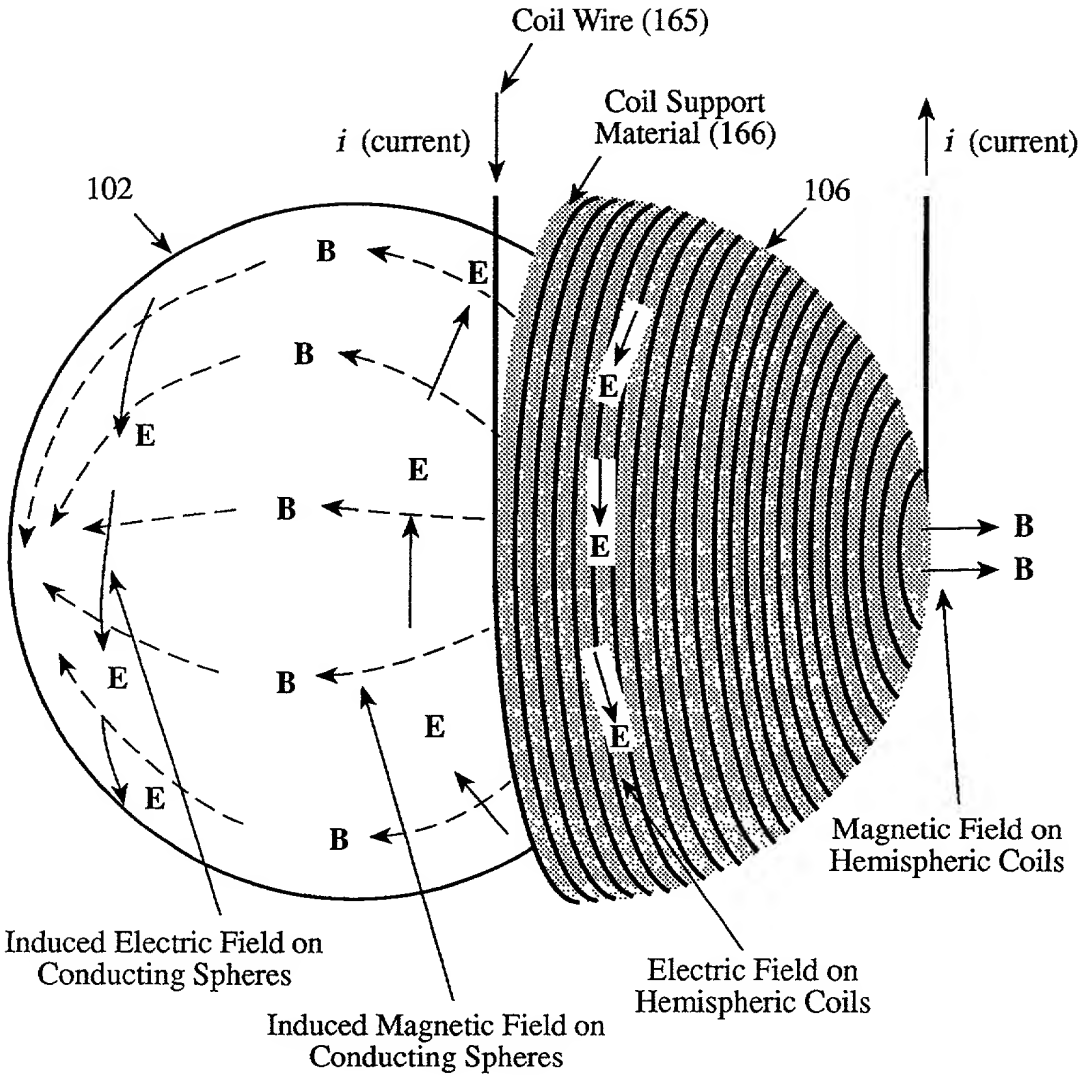

Coil Wire (165)
Coil Support Material (166)
i (current)
i (current)
102
106
B
E
Induced Electric Field on Conducting Spheres
Induced Magnetic Field on Conducting Spheres
Electric Field on Hemispheric Coils
Magnetic Field on Hemispheric Coils

Figure 15

Exploded View of
Parallel Hemispheric Coils

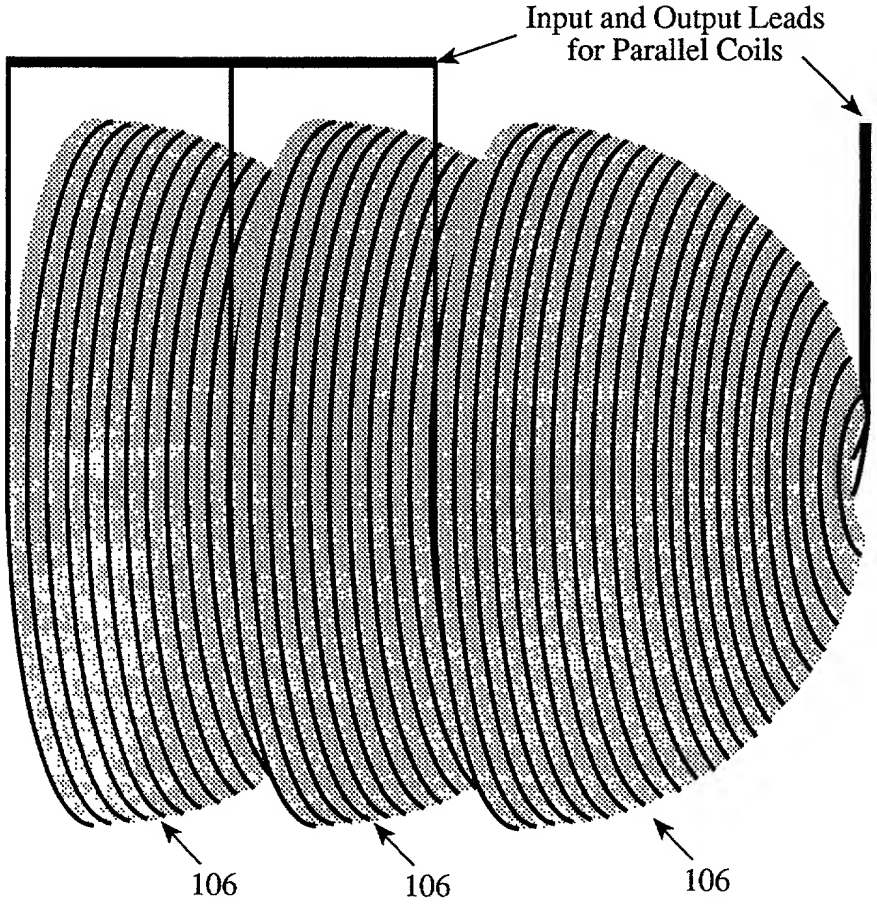


Figure 16

Exploded View of
Parallel Hemispheric Coils
Connected in Series

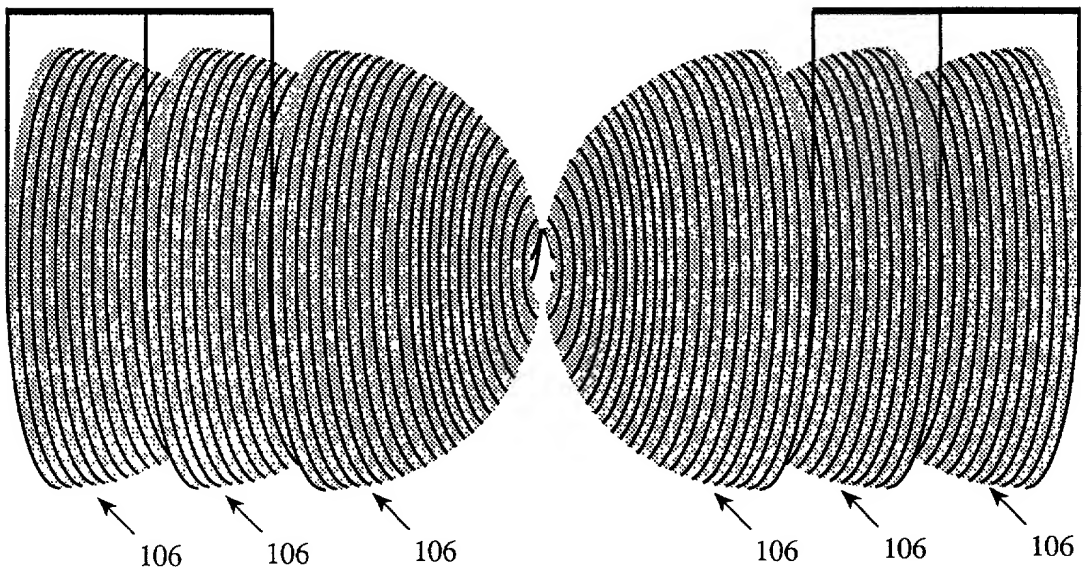


Figure 17

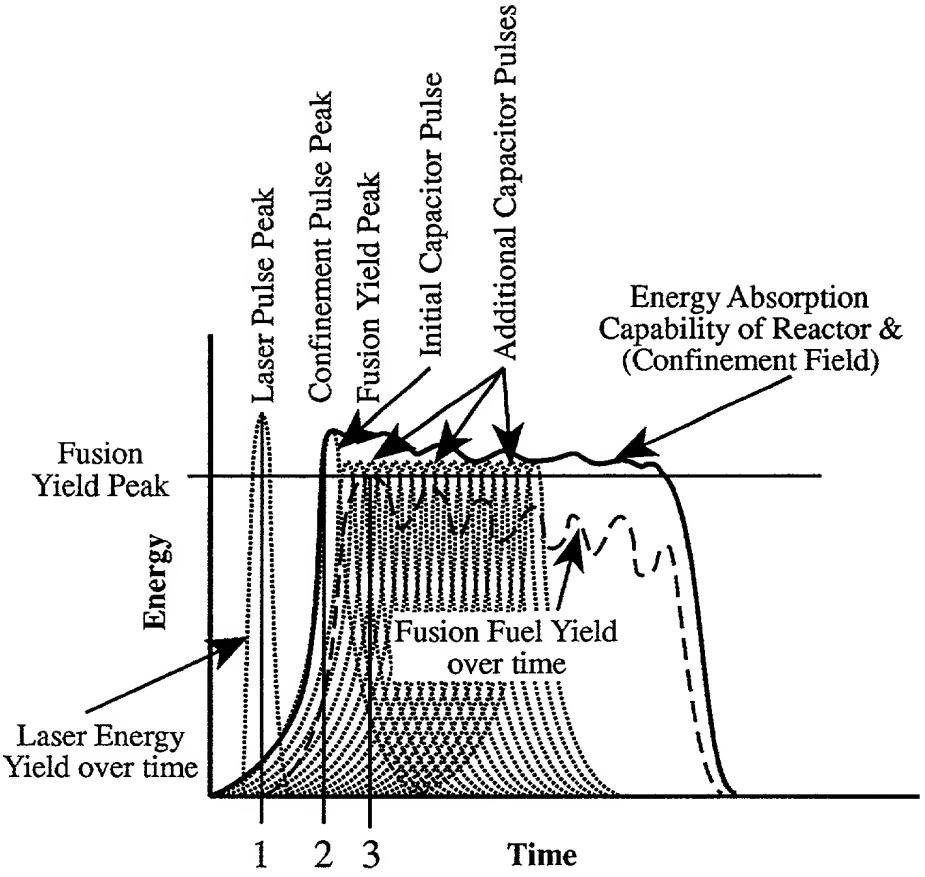

Laser Pulse Peak
Confinement Pulse Peak
Fusion Yield Peak
Initial Capacitor Pulse
Additional Capacitor Pulses
Energy Absorption
Capability of Reactor &
(Confinement Field)
Fusion
Yield Peak
Energy
Fusion Fuel Yield
over time
Laser Energy
Yield over time
1
2
3
Time

Figure 18

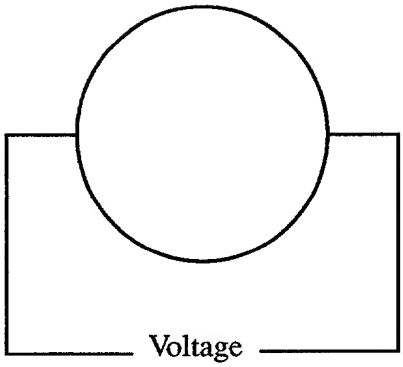


Figure 19

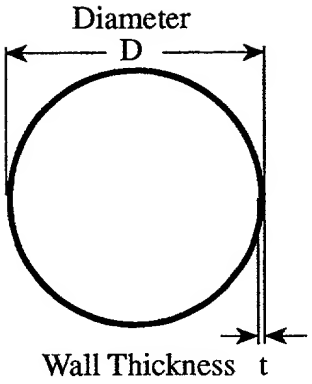


Figure 20

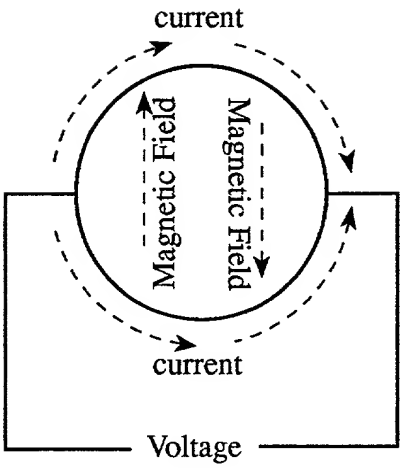


Figure 21

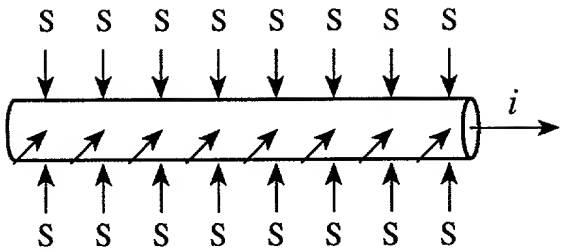


Figure 22

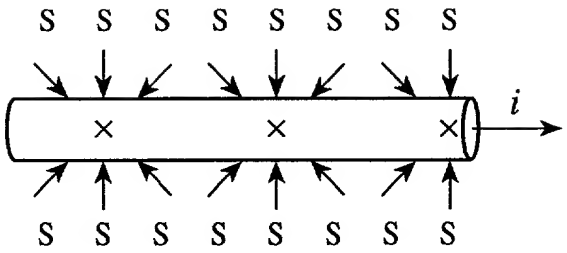
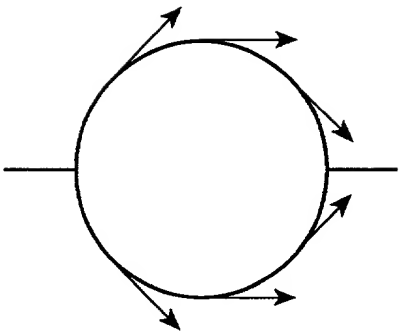
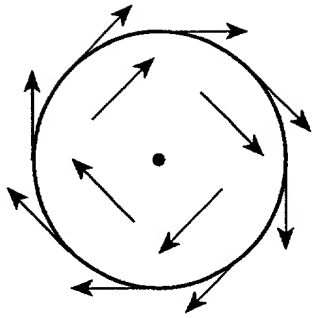


Figure 23



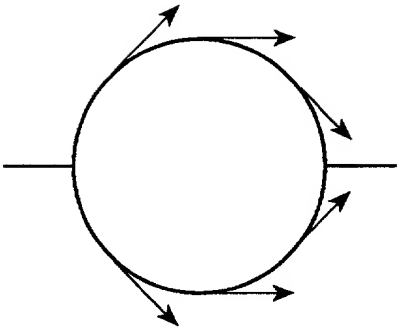
Side View of Core
Tangential Electrical Field

Figure 24(a)



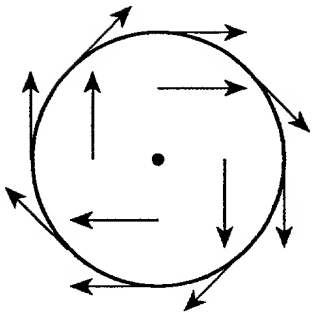
End View of Core
Tangential Magnetic Field

Figure 24(b)



Side View of Core
Tangential Magnetic Field

Figure 25(a)



End View of Core
Tangential Electrical Field

Figure 25(b)

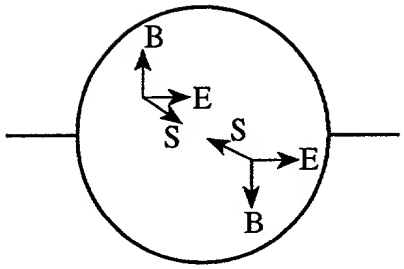


Figure 26

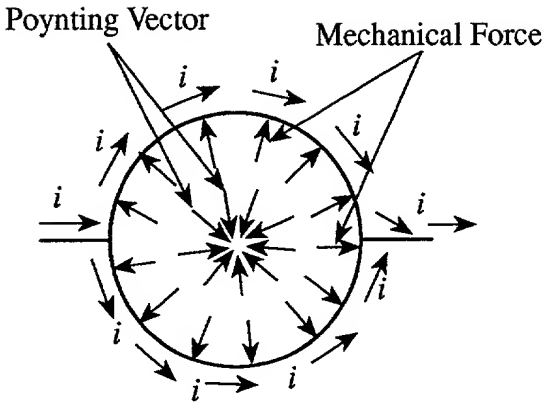


Figure 27

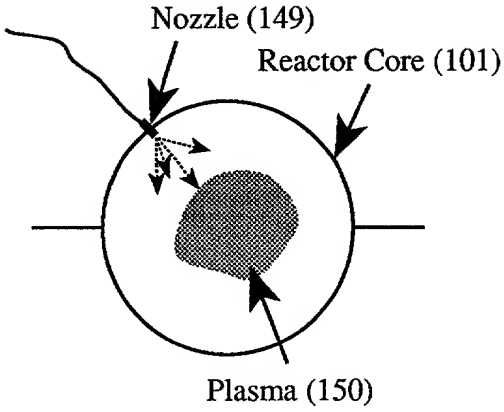


Figure 28

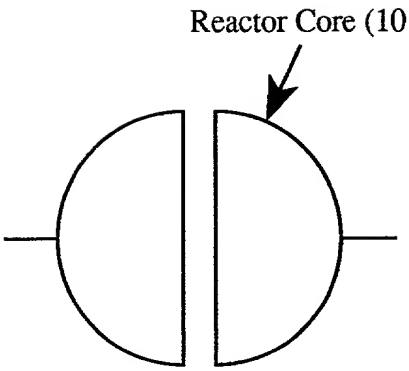


Figure 29(a)

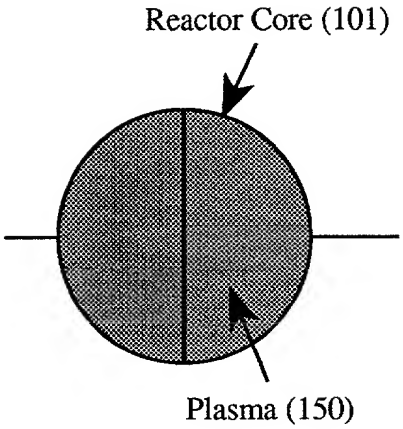


Figure 29(b)

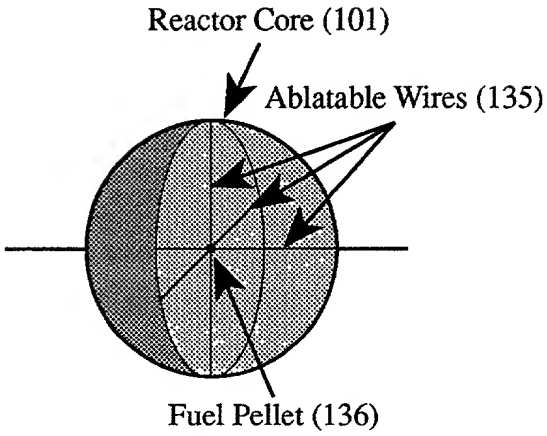


Figure 30

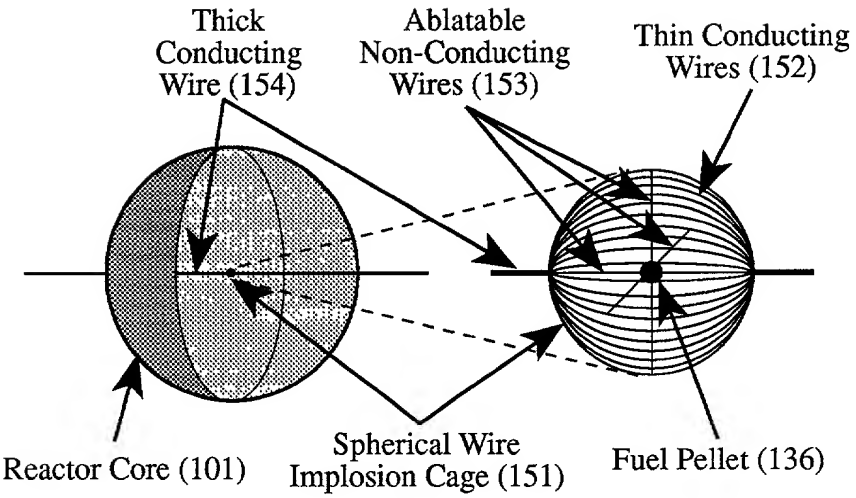

Thick
Conducting
Wire (154)
Ablatable
Non-Conducting
Wires (153)
Thin Conducting
Wires (152)
Reactor Core (101)
Spherical Wire
Implosion Cage (151)
Fuel Pellet (136)

Figure 31

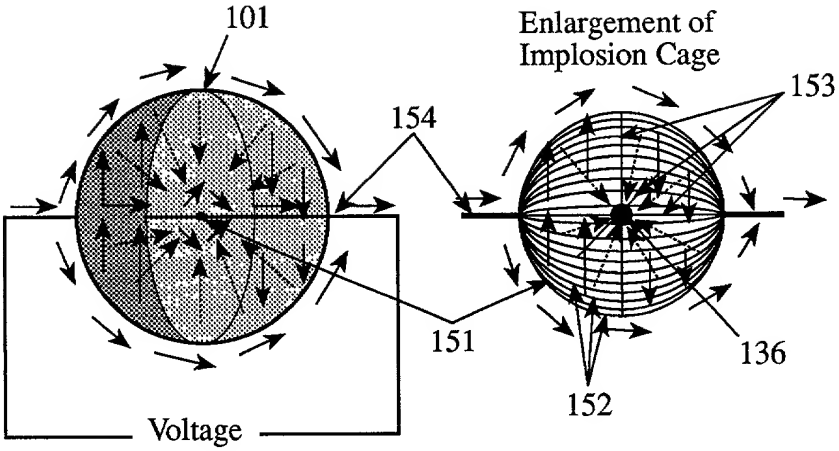

101
Enlargement of
Implosion Cage
153
154
151
136
152
Voltage

Figure 32

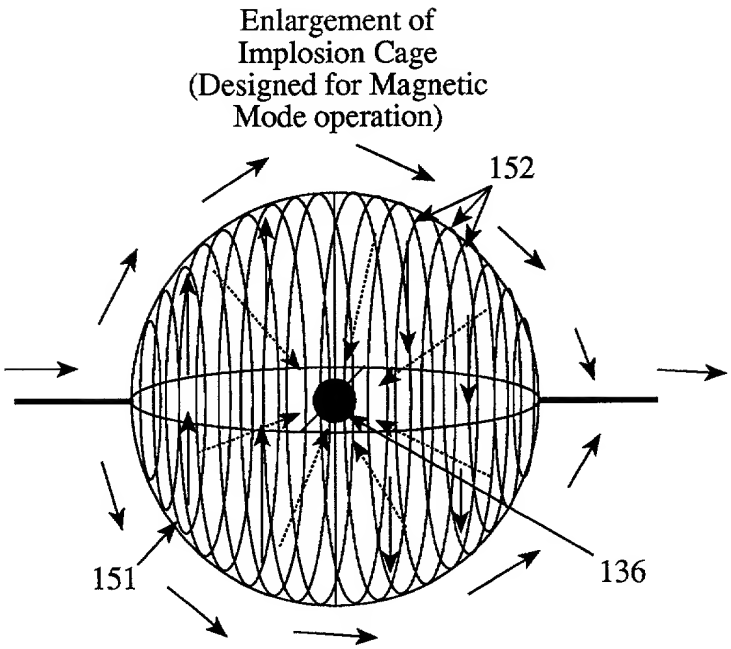

Enlargement of
Implosion Cage
(Designed for Magnetic
Mode operation)
152
151
136

Figure 33

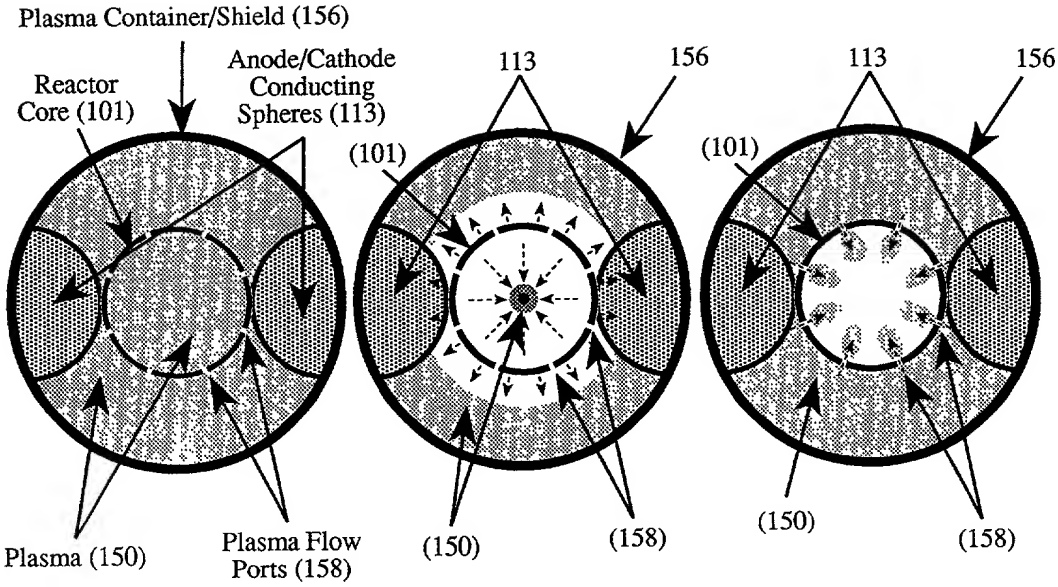


Figure 34(a) Figure 34(b) Figure 34(c)

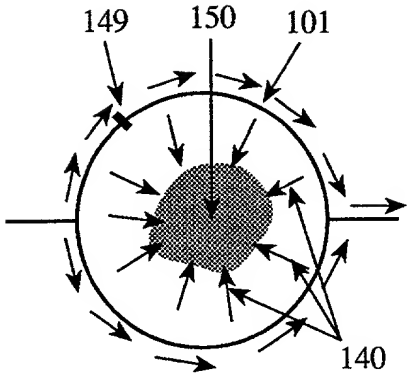


Figure 35

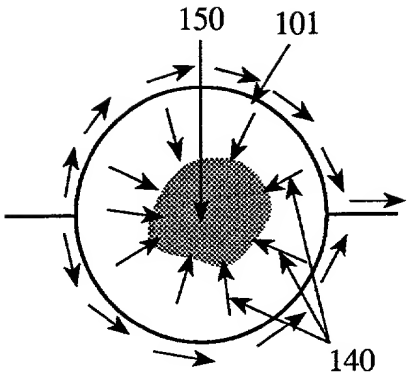


Figure 36

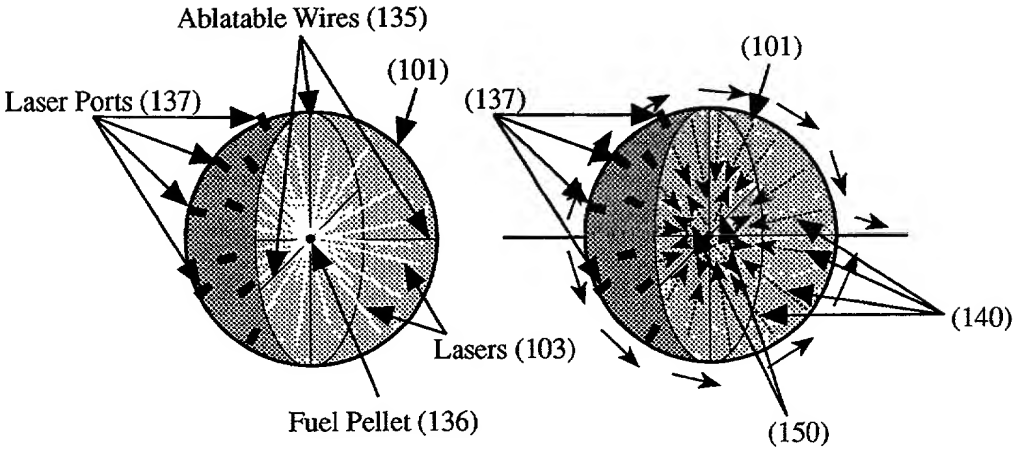


Figure 37(a) **Figure 37(b)**

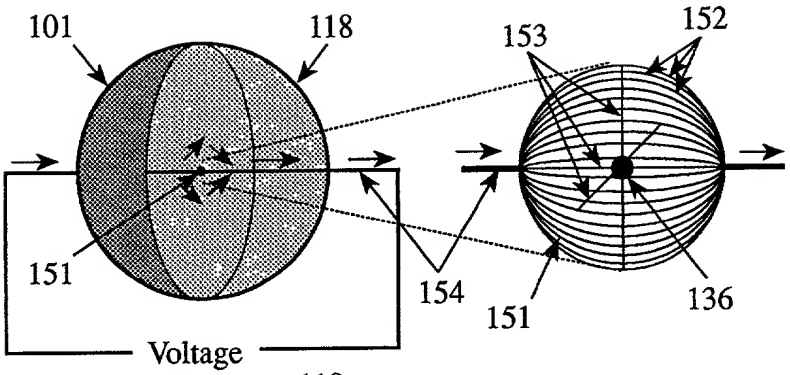


Figure 38(a)

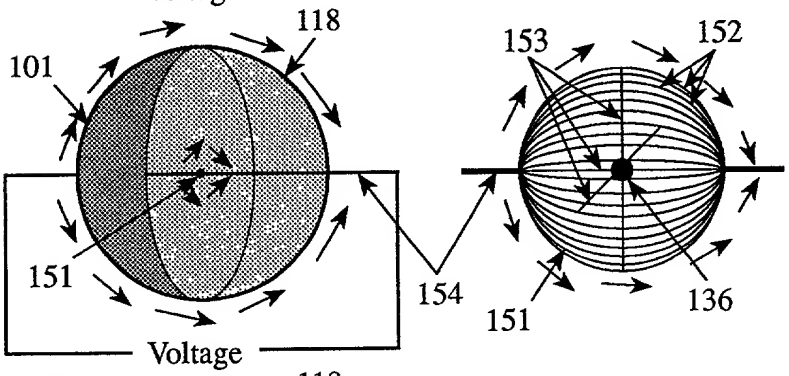


Figure 38(b)

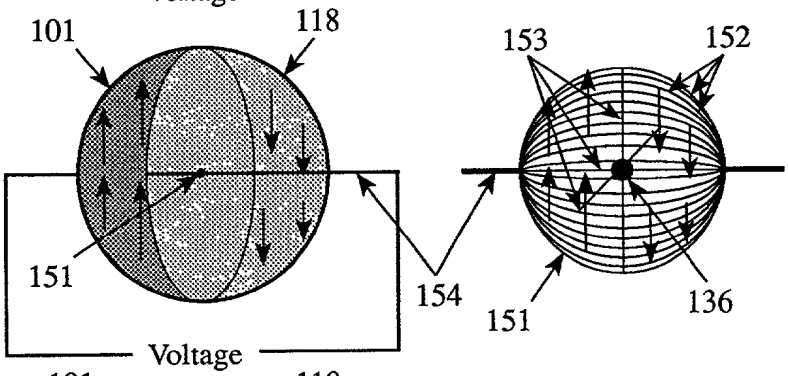


Figure 38(c)

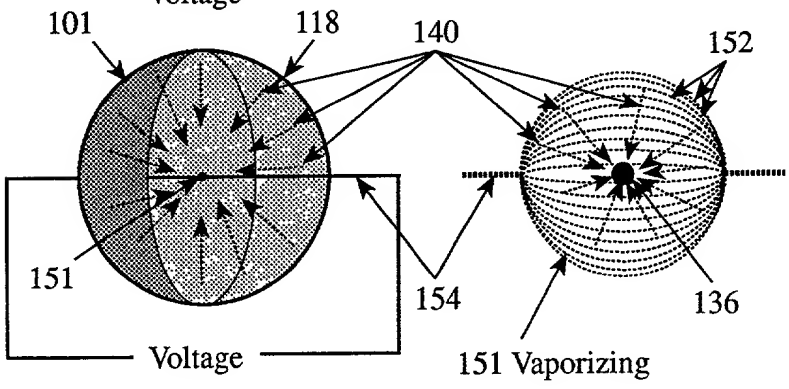


Figure 38(d)

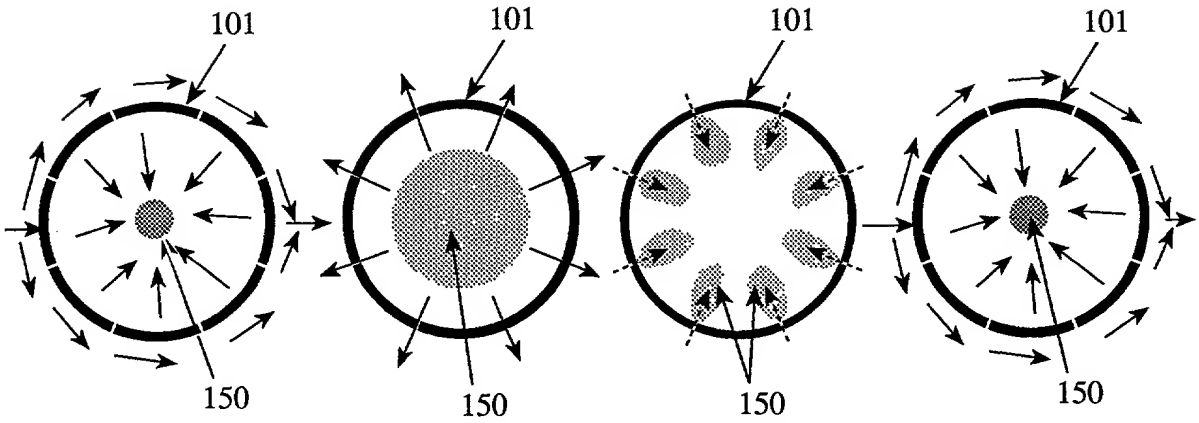


Figure 39(a) **Figure 39(b)** **Figure 39(c)** **Figure 39(d)**

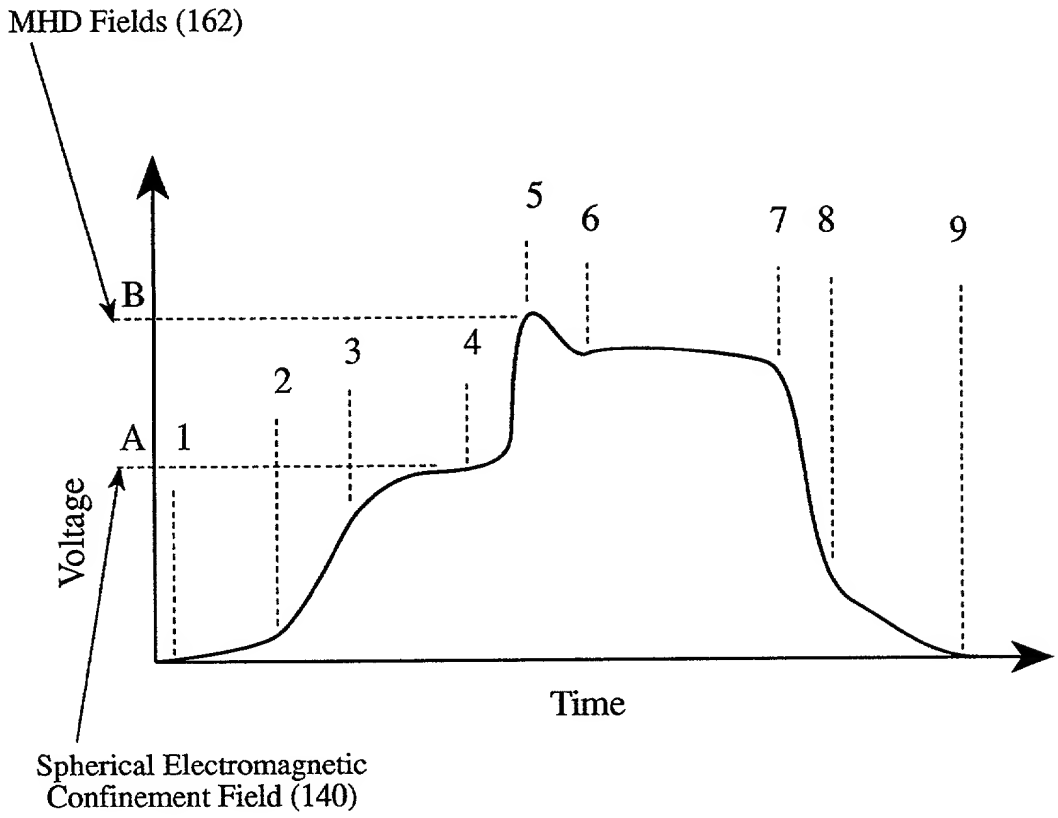

MHD Fields (162)
B
A
1
2
3
4
5
6
7
8
9
Voltage
Time
Spherical Electromagnetic
Confinement Field (140)

Figure 40

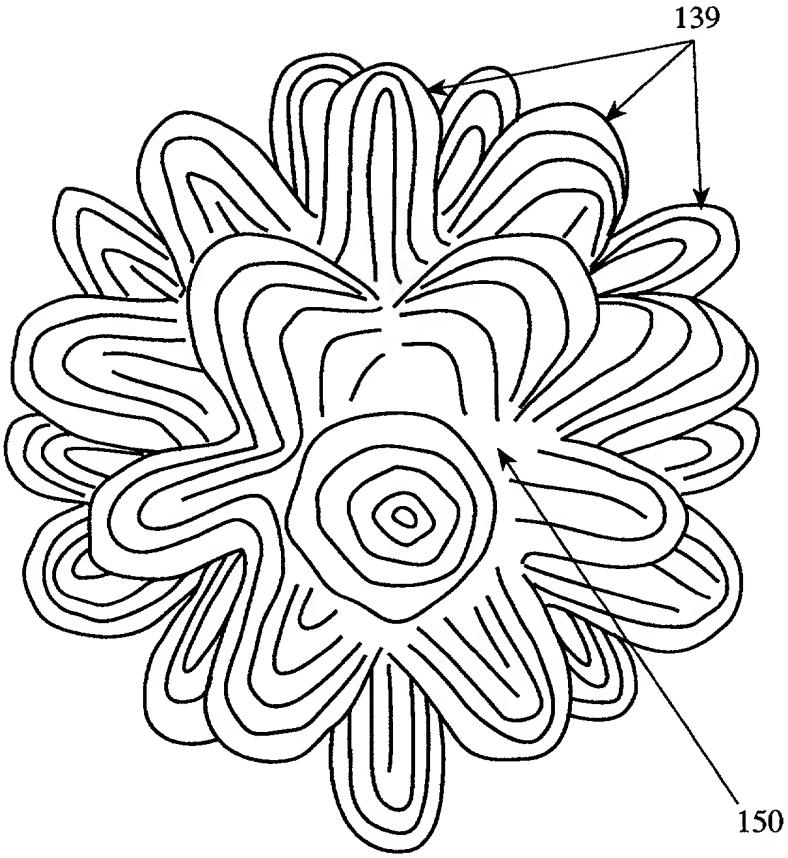


Figure 41

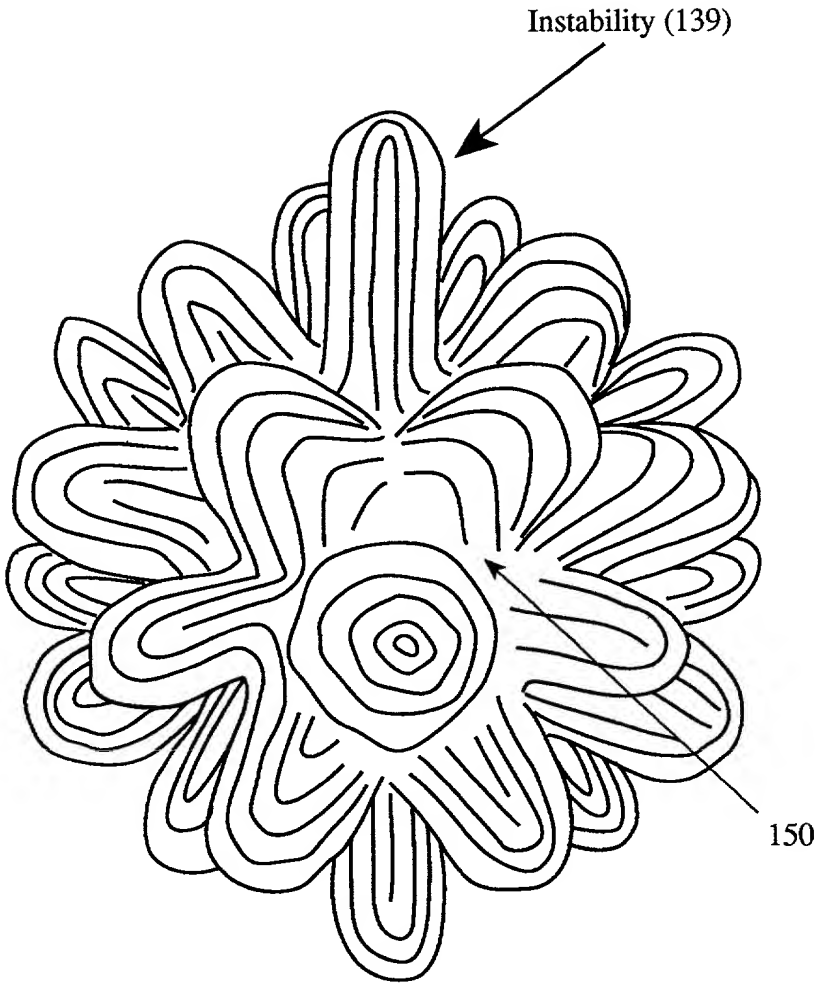


Figure 42

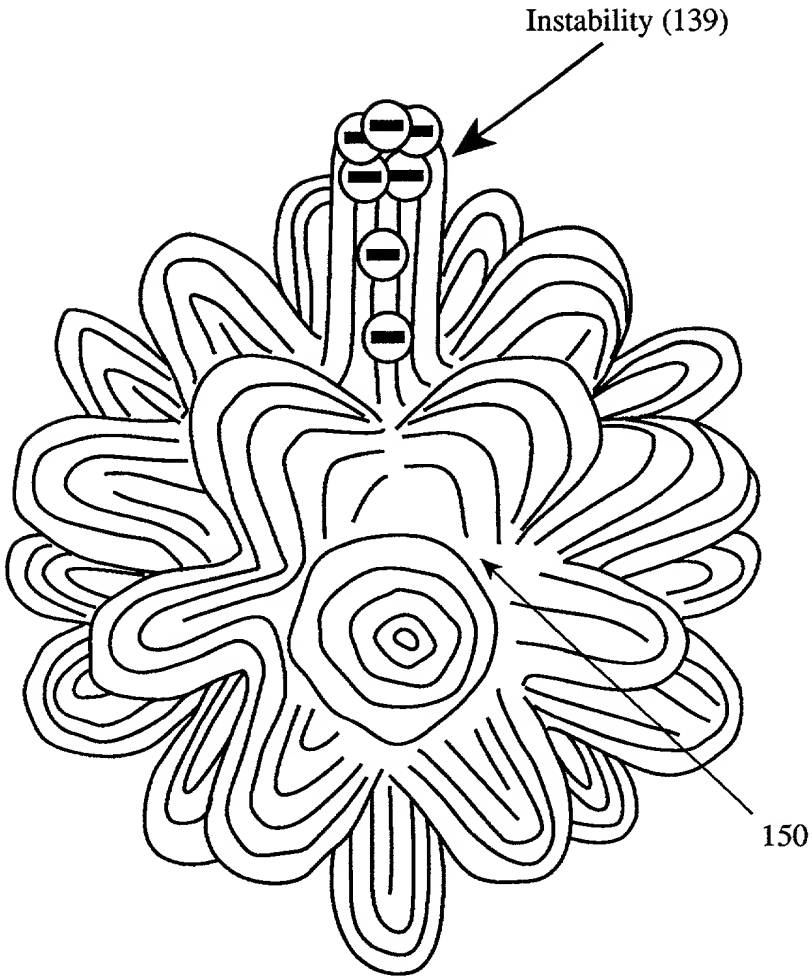


Figure 43

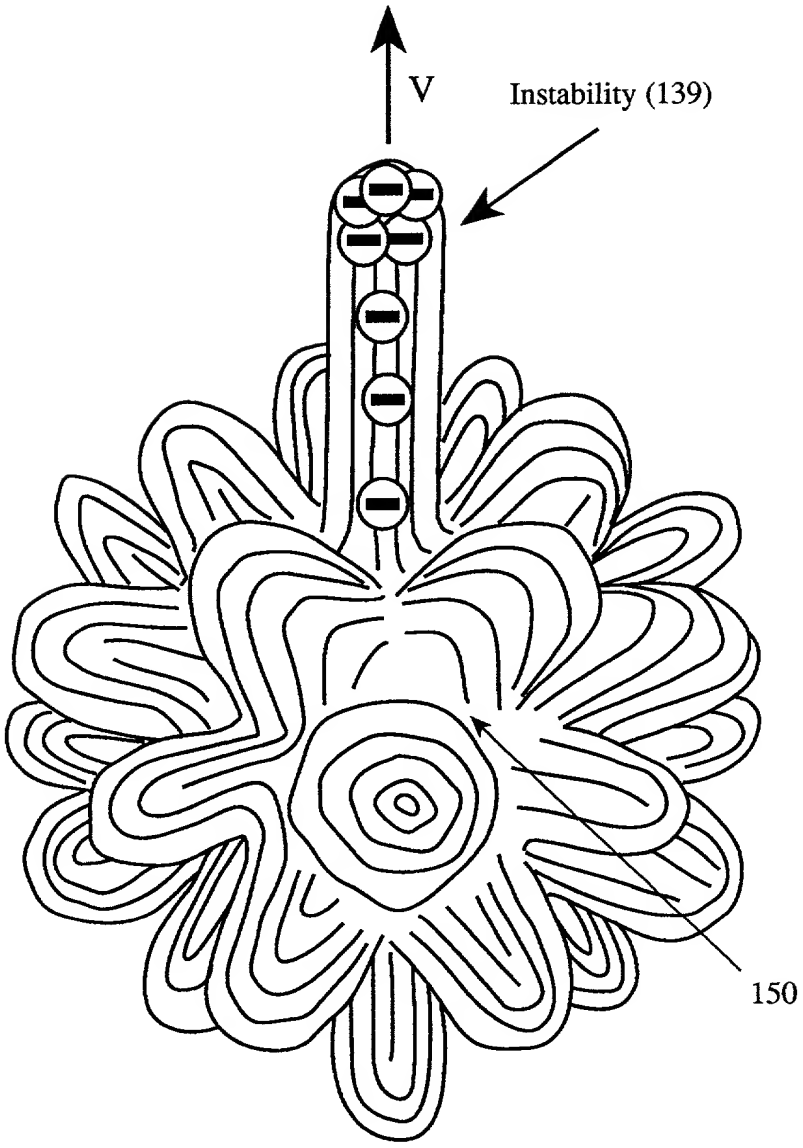


Figure 44

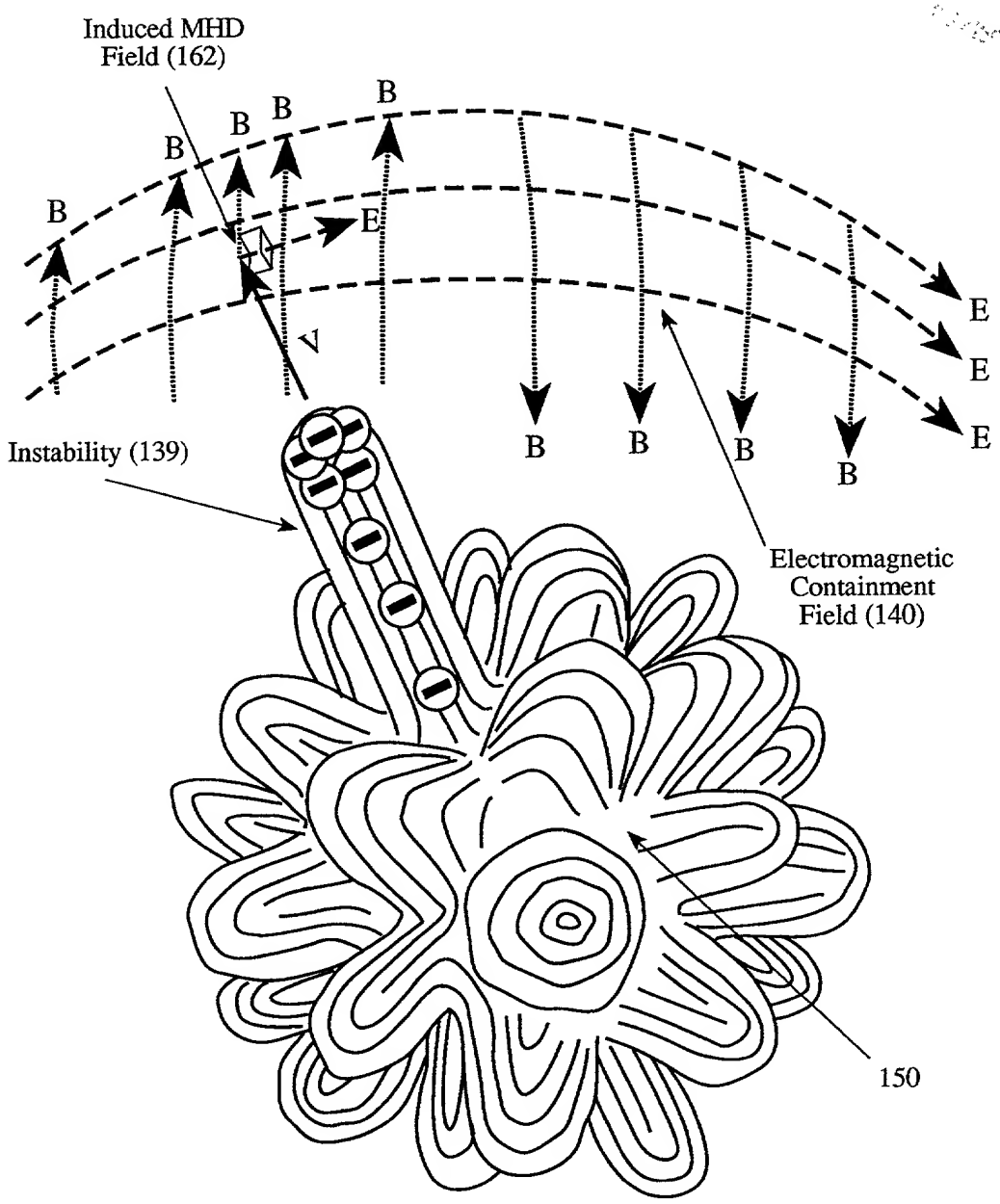

Induced MHD
Field (162)
B
E
V
Instability (139)
Electromagnetic
Containment
Field (140)
150

Figure 45

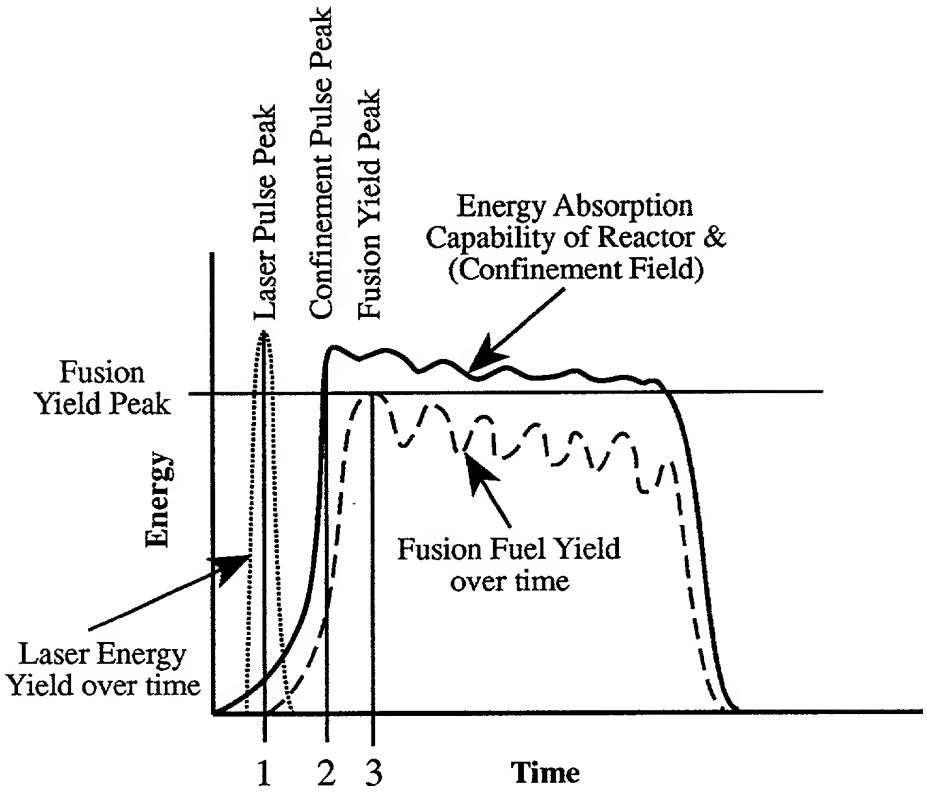

Laser Pulse Peak
Confinement Pulse Peak
Fusion Yield Peak
Energy Absorption
Capability of Reactor &
(Confinement Field)
Fusion
Yield Peak
Energy
Fusion Fuel Yield
over time
Laser Energy
Yield over time
1
2
3
Time

Figure 46

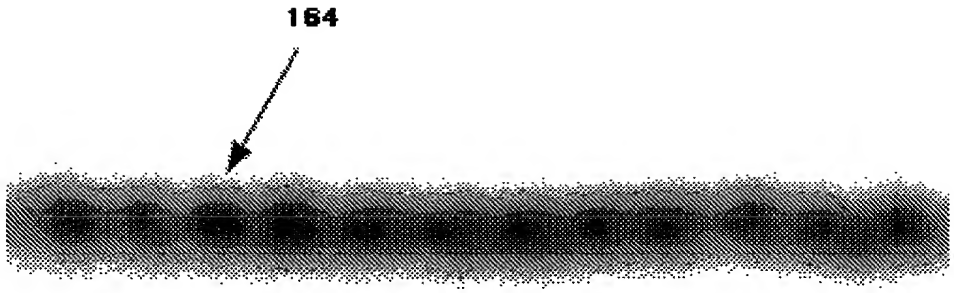


Figure 47

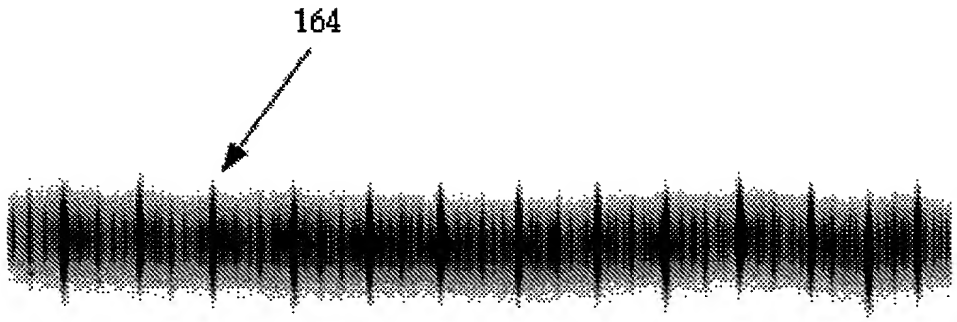


Figure 48

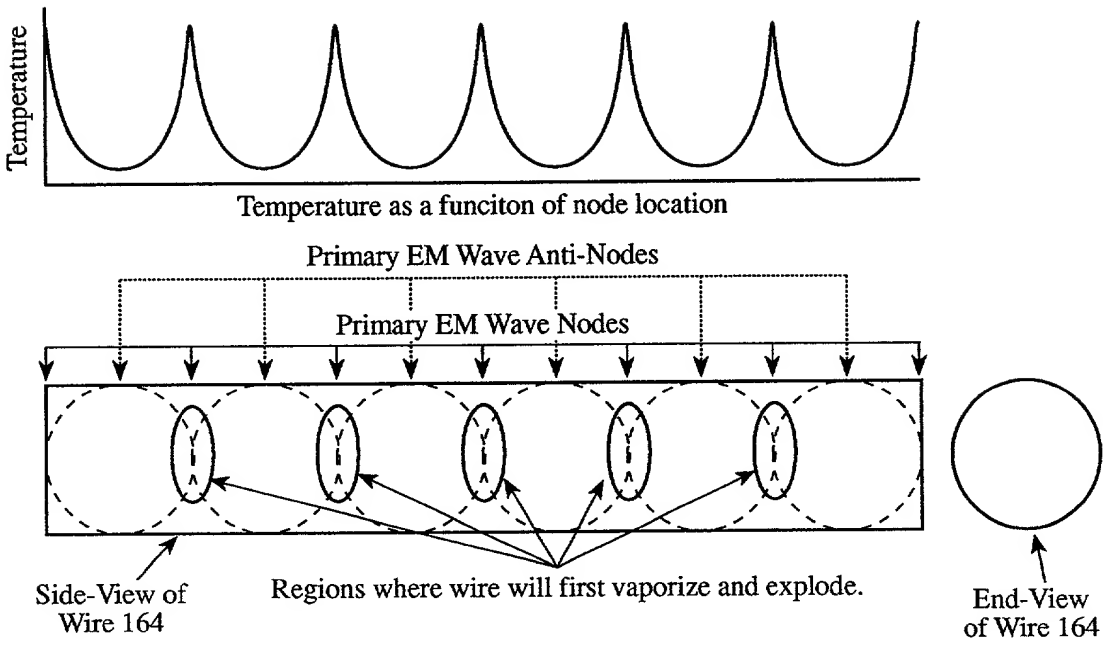

Temperature
Temperature as a funciton of node location
Primary EM Wave Anti-Nodes
Primary EM Wave Nodes
Side-View of Wire 164
Regions where wire will first vaporize and explode.
End-View of Wire 164

Figure 49

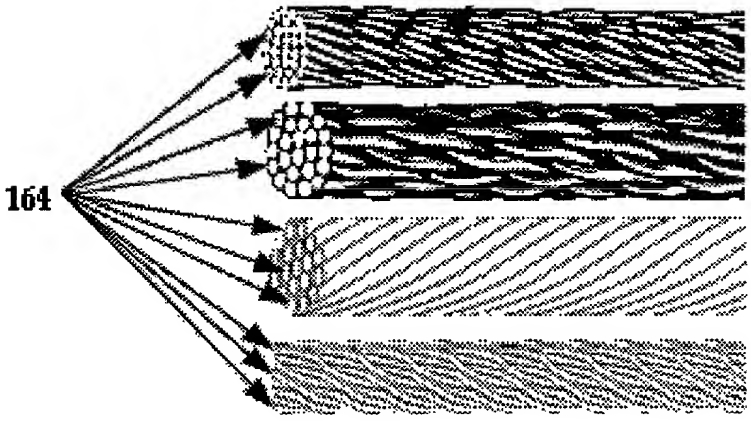


Figure 50

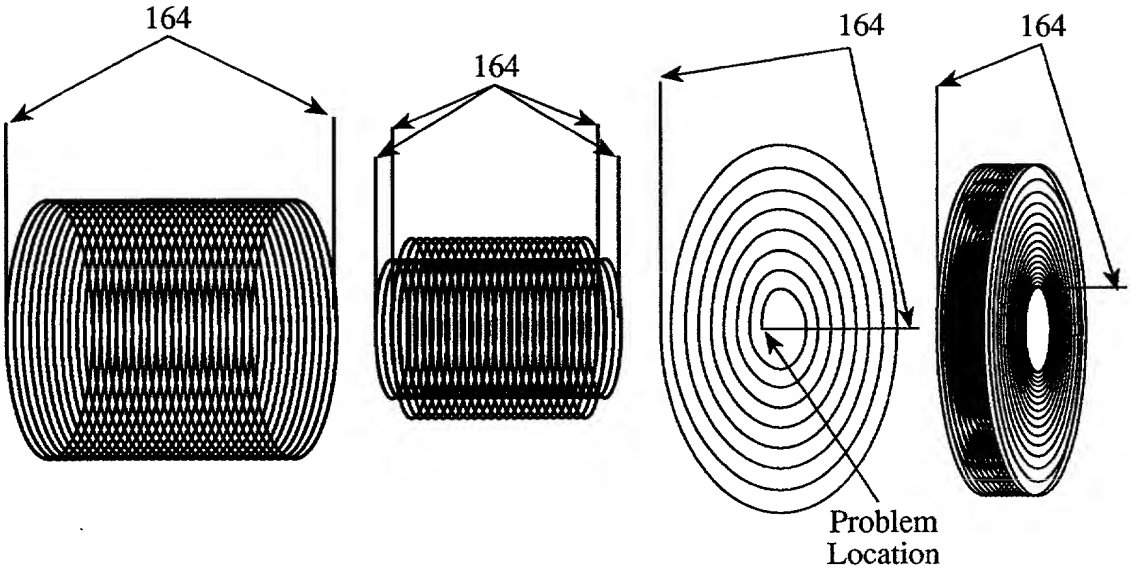


Figure 51(a) **Figure 51(b)** **Figure 51(c)** **Figure 51(d)**

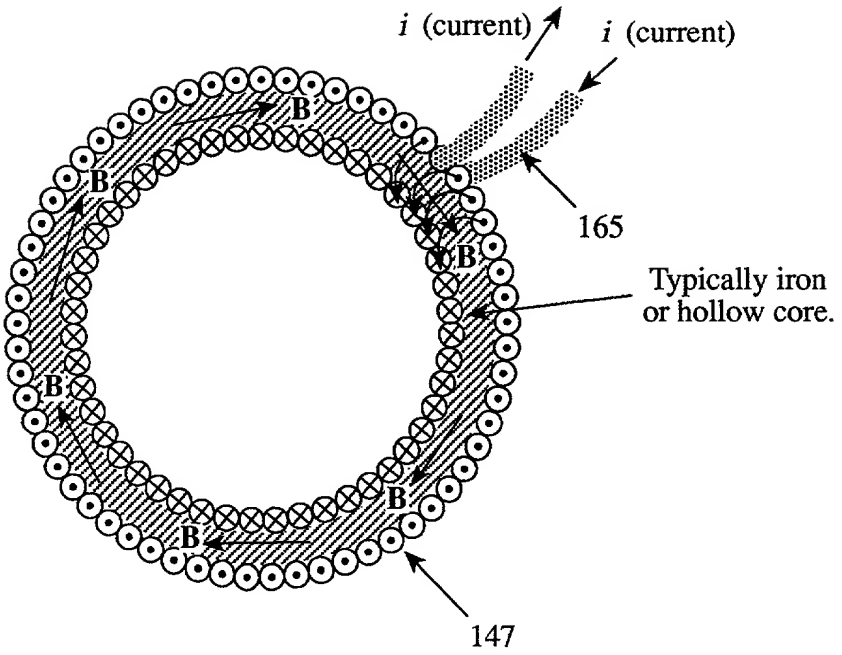
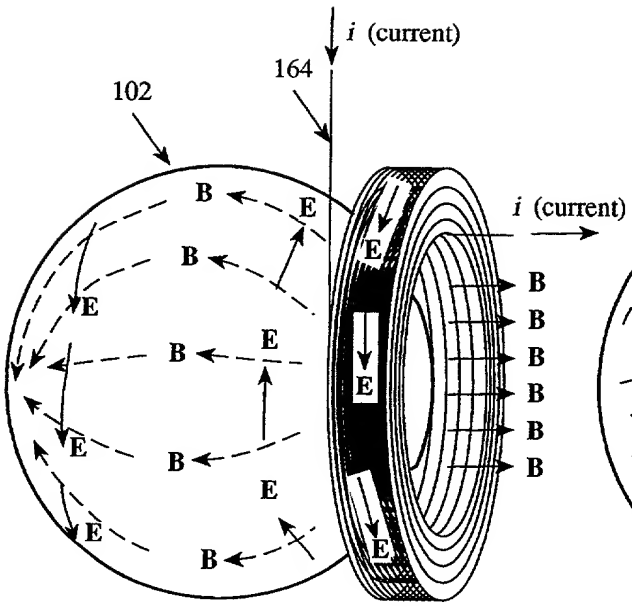
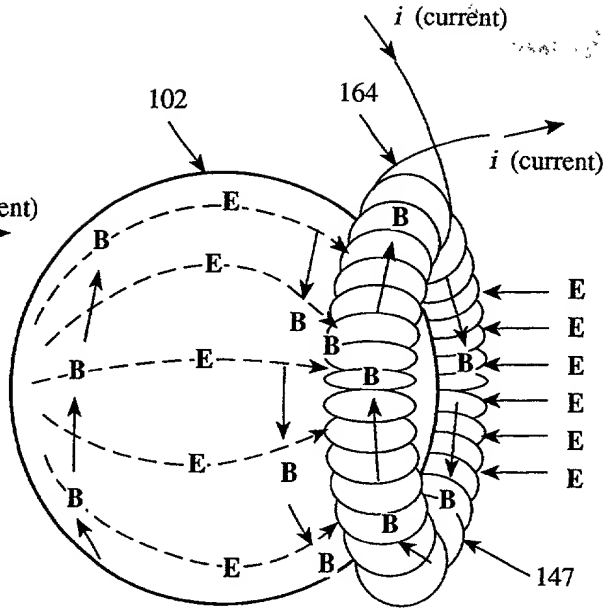

i (current)
i (current)
B
B
B
B
B
B
B
165
Typically iron
or hollow core.
147

Figure 52



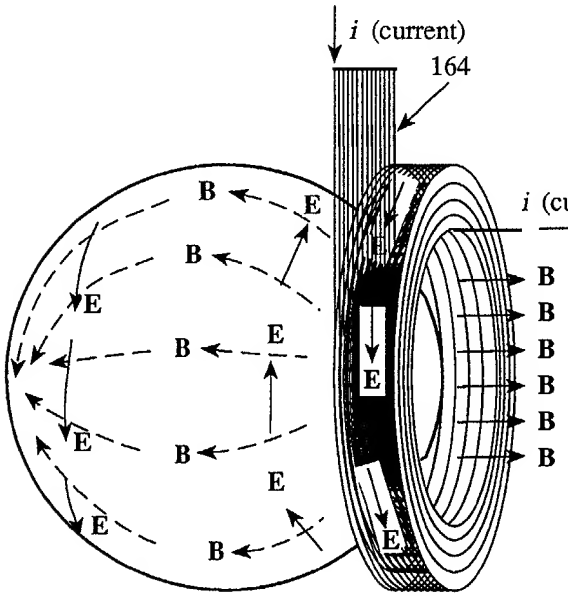
Interaction of
a normal coil's E & B fields with
a conducting sphere's E & B fields.

Figure 53(a)



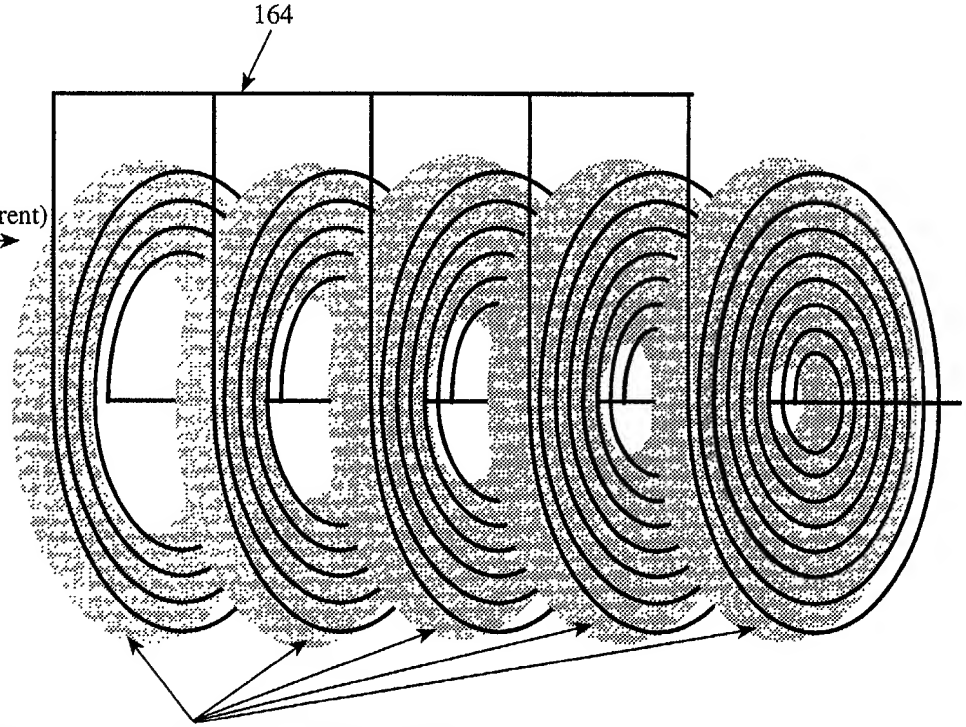
Interaction of
a Rowland Ring coil's E & B fields with
a conducting sphere's E & B fields.

Figure 53(b)



Interaction of
a normal coil's E & B fields with
a conducting sphere's E & B fields.

Figure 54(a)



Reinforcement & Cooling Panels (161)

Figure 54(b)

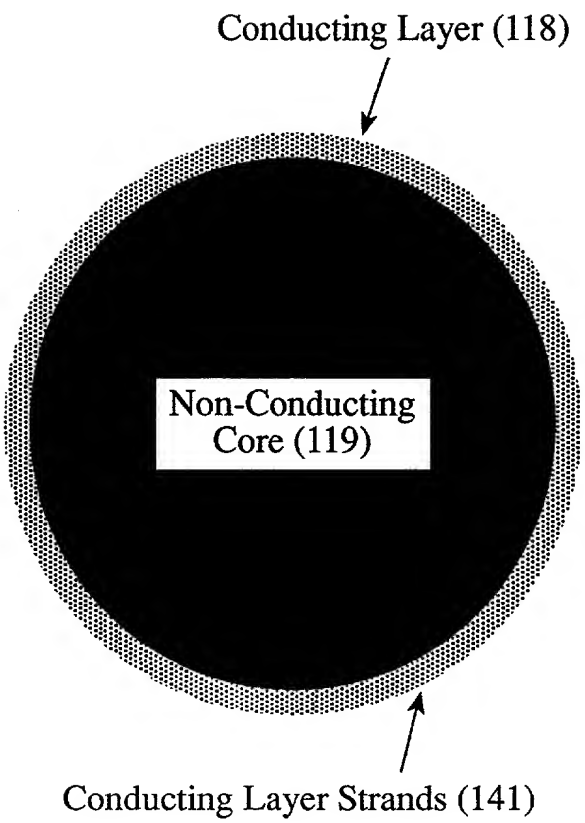


Figure 55(a)

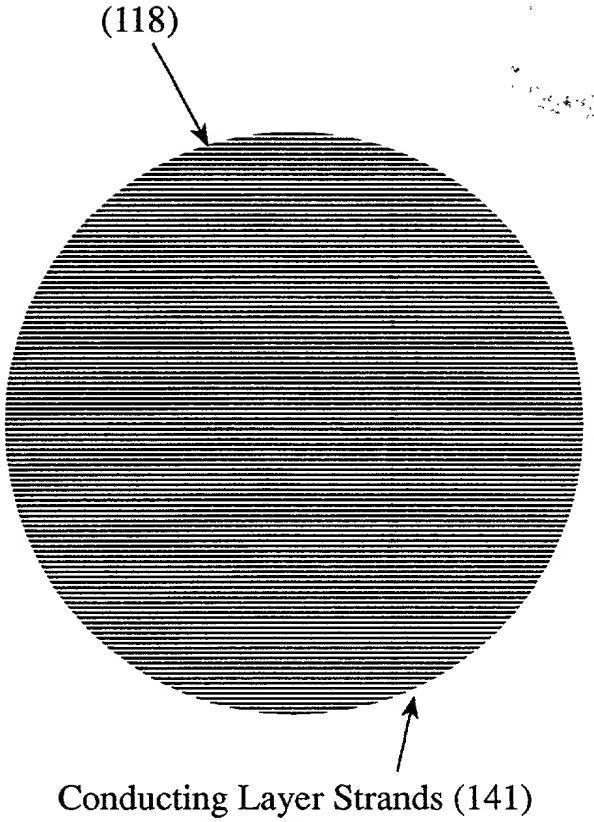


Figure 55(b)

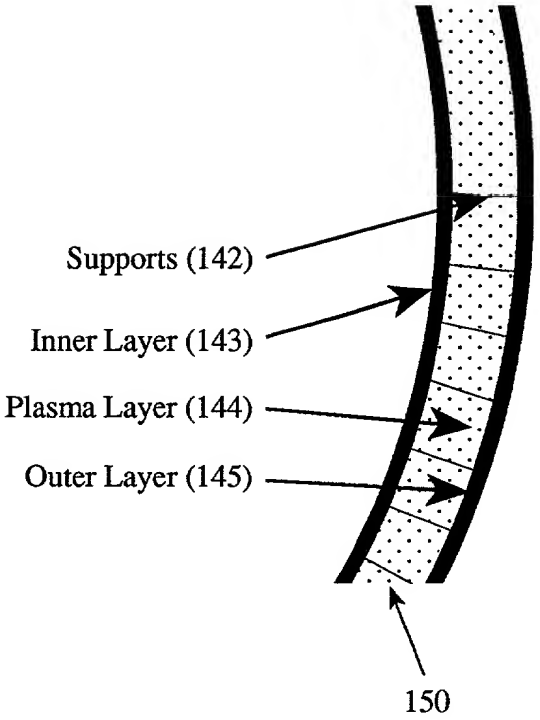

Supports (142)
Inner Layer (143)
Plasma Layer (144)
Outer Layer (145)
150

Figure 56

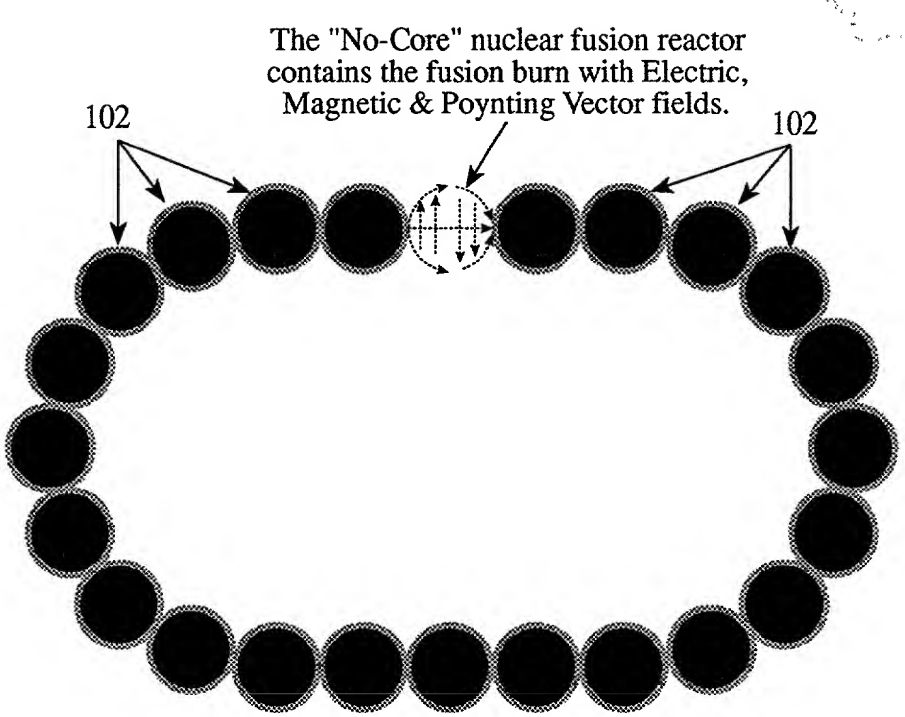

The "No-Core" nuclear fusion reactor
contains the fusion burn with Electric,
Magnetic & Poynting Vector fields.
102
102

Figure 57

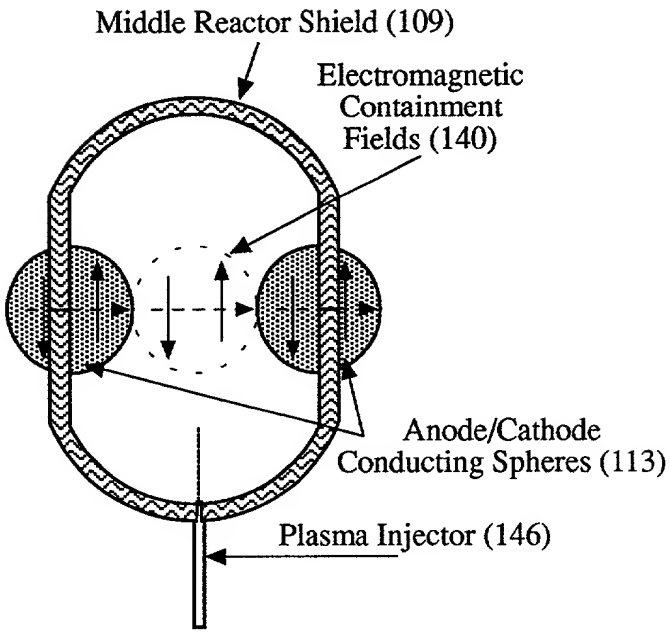

Middle Reactor Shield (109)
Electromagnetic
Containment
Fields (140)
Anode/Cathode
Conducting Spheres (113)
Plasma Injector (146)

Figure 58

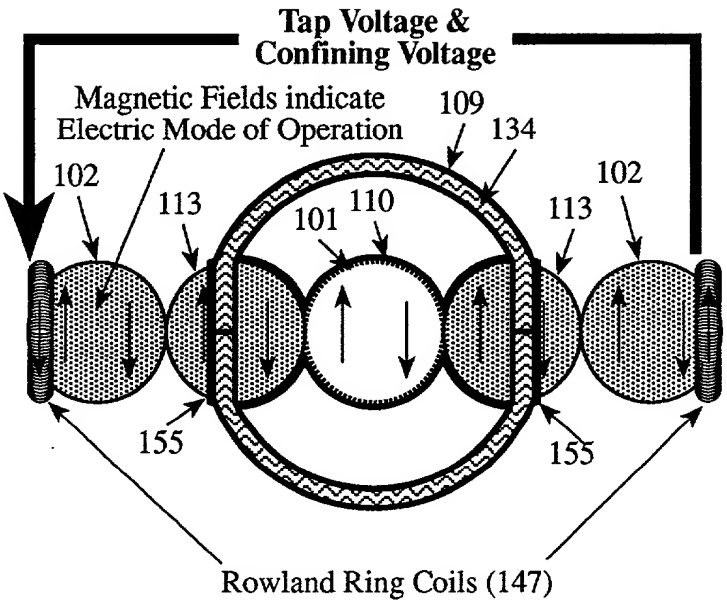

Tap Voltage &
Confining Voltage
Magnetic Fields indicate
Electric Mode of Operation
109
134
102
113
101
110
113
102
155
155
Rowland Ring Coils (147)

Figure 59

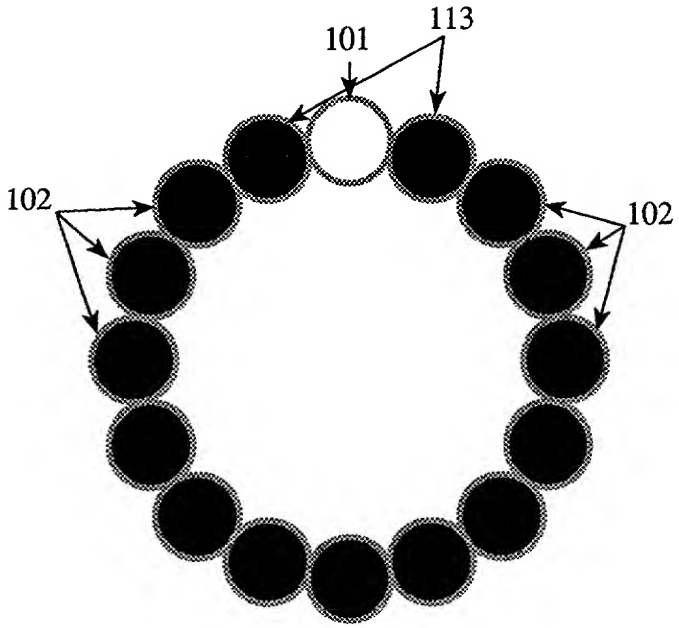


Figure 60

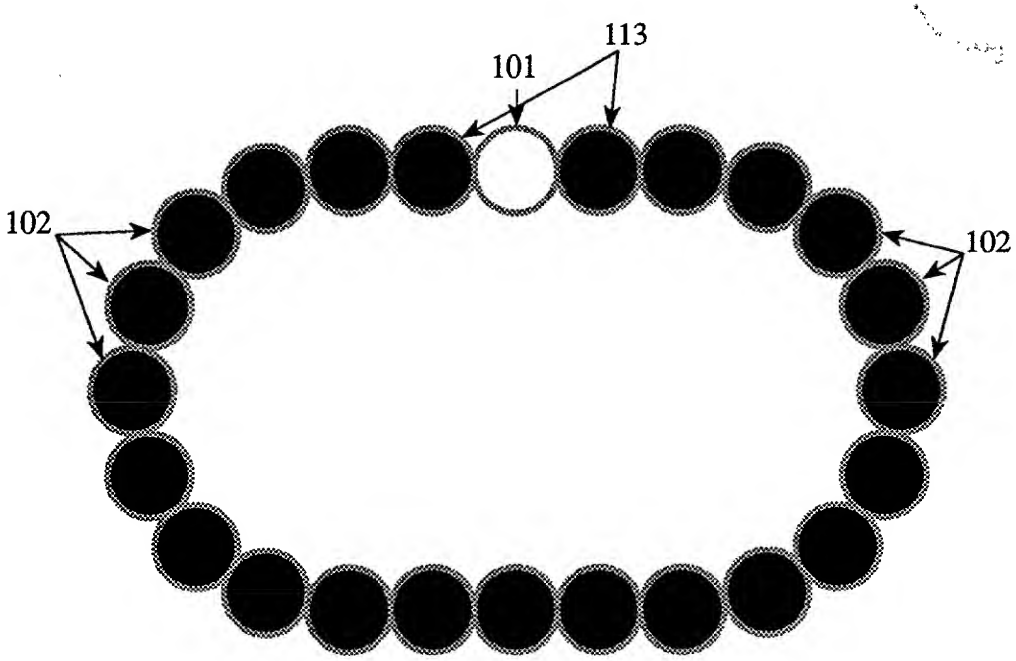


Figure 61

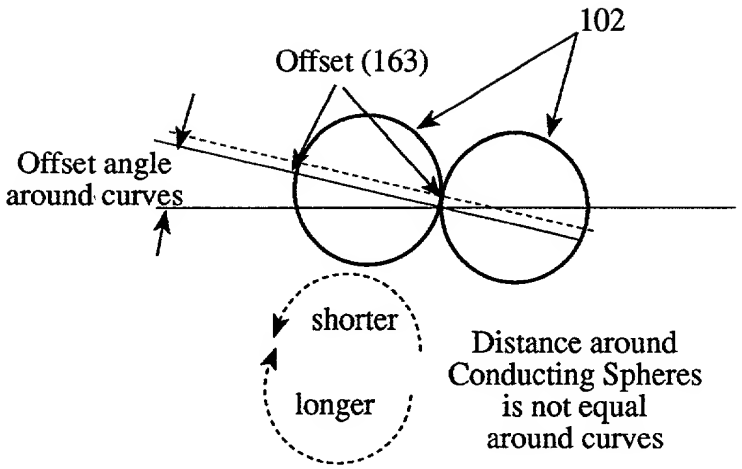

102
Offset (163)
Offset angle
around curves
shorter
longer
Distance around
Conducting Spheres
is not equal
around curves

Figure 62

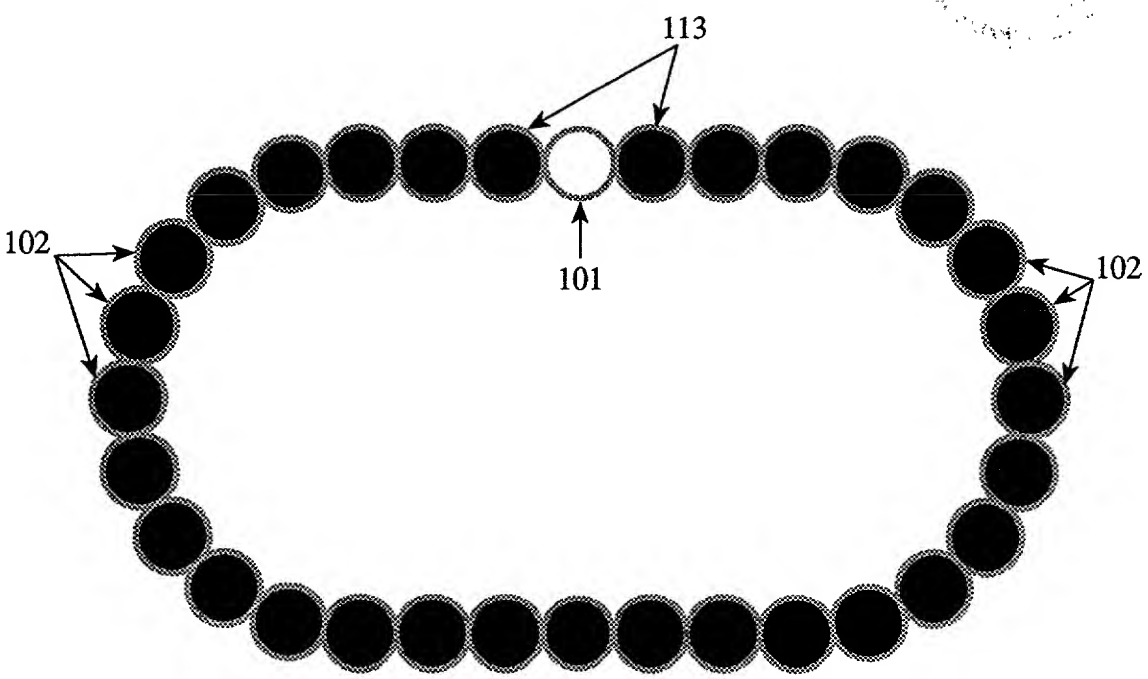


Figure 63

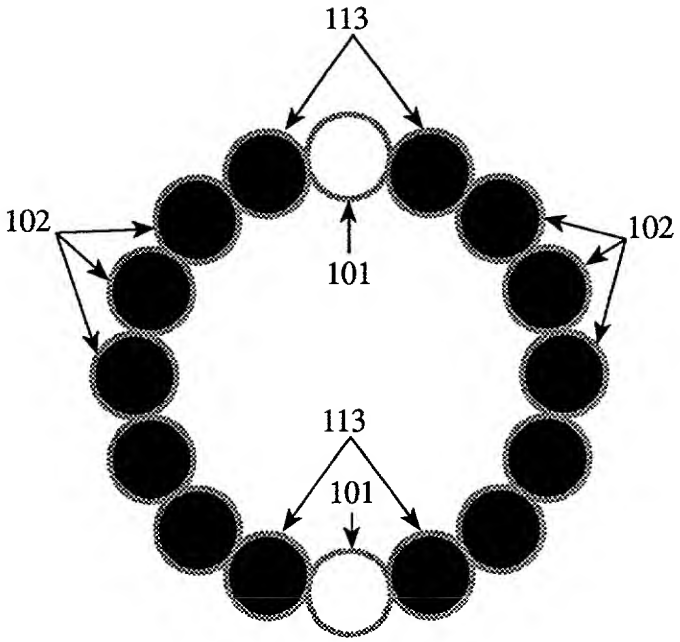


Figure 64

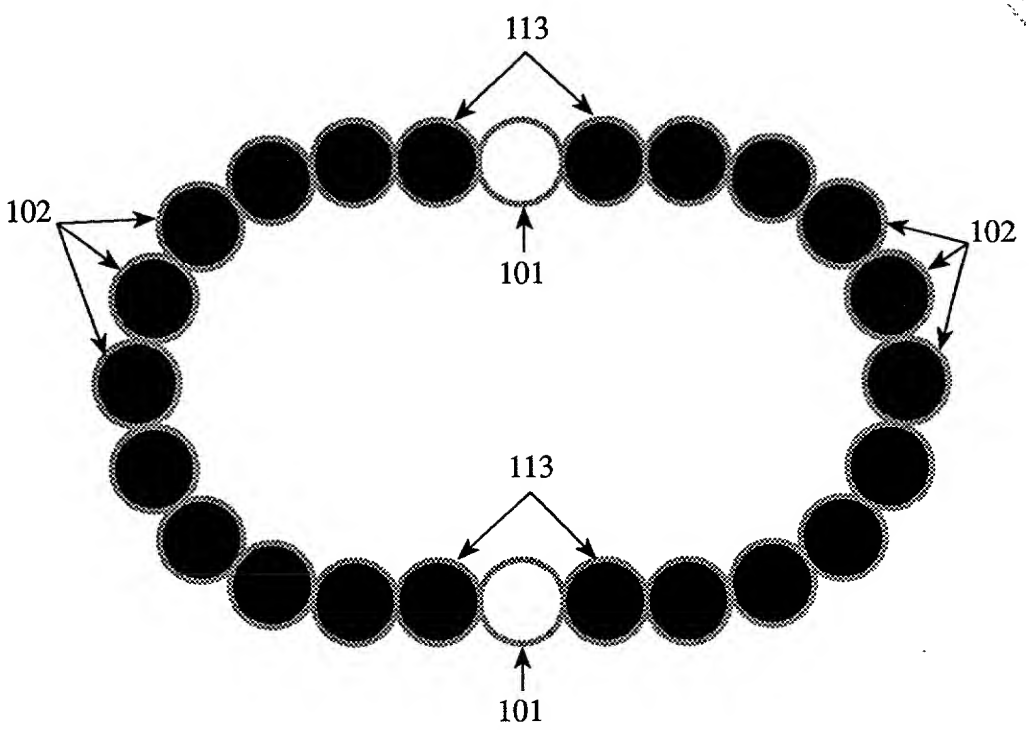


Figure 65

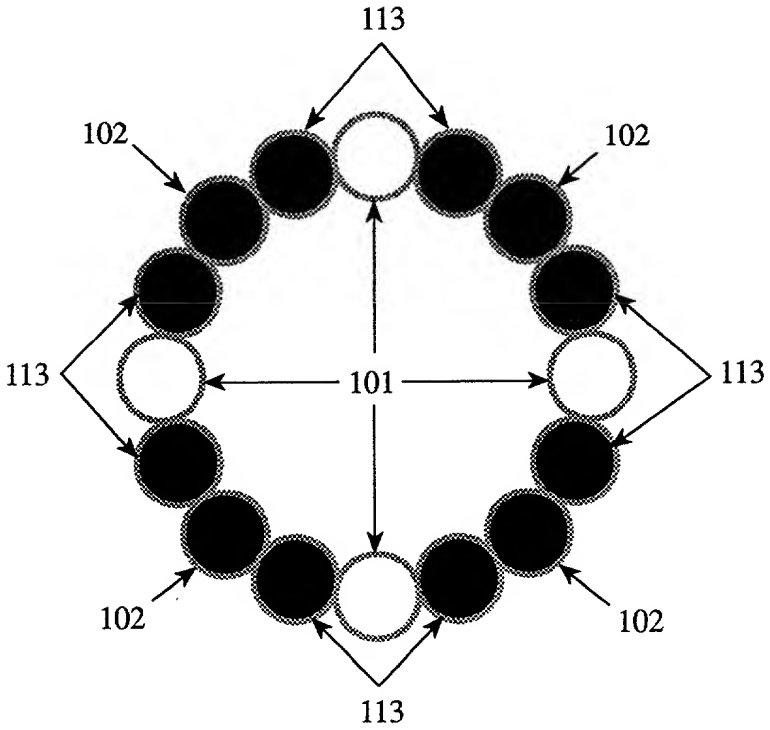


Figure 66

EXHIBIT 3 - 2002-0000

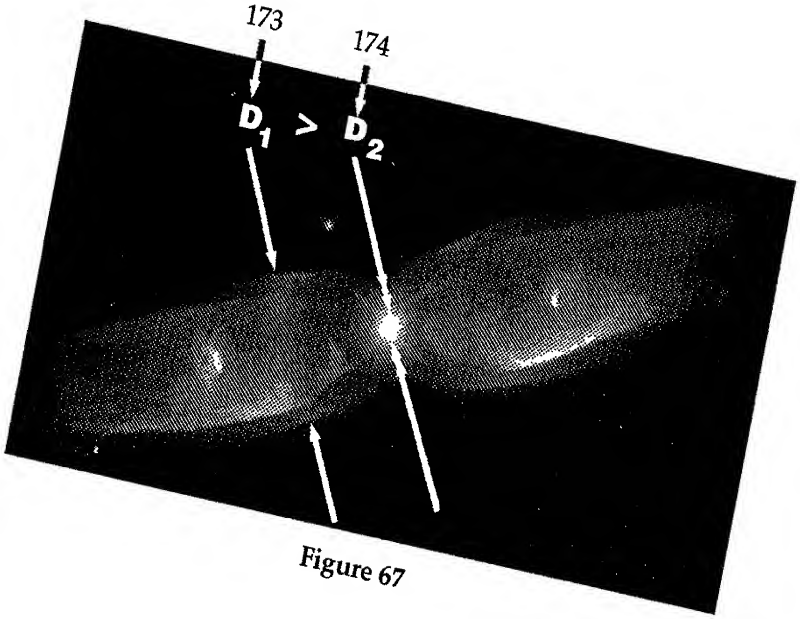


Figure 67

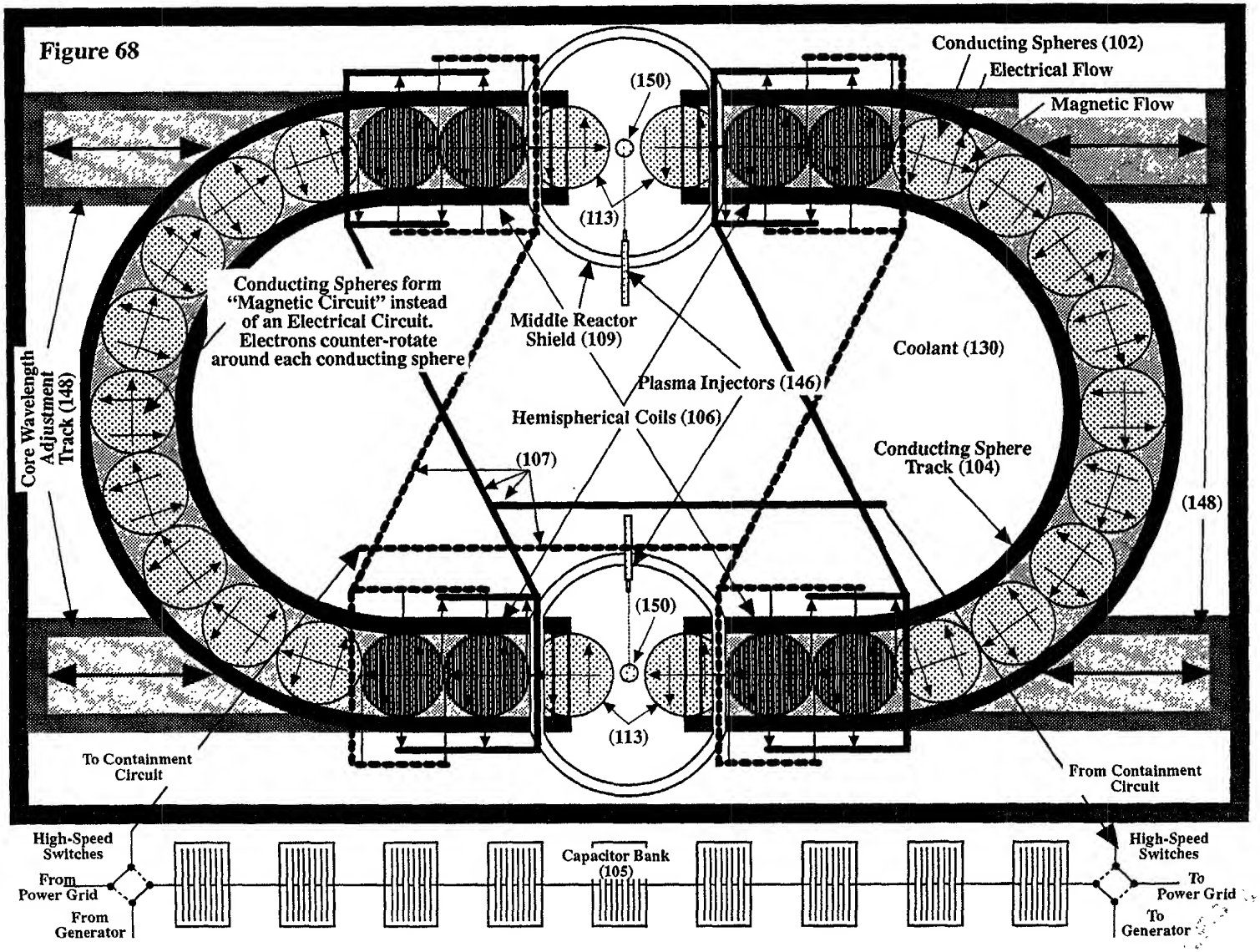


Figure 68
Conducting Spheres (102)
Electrical Flow
Magnetic Flow
(150)
(113)
Conducting Spheres form "Magnetic Circuit" instead of an Electrical Circuit. Electrons counter-rotate around each conducting sphere
Middle Reactor Shield (109)
Coolant (130)
Plasma Injectors (146)
Hemispherical Coils (106)
Core Wavelength Adjustment Track (148)
(107)
Conducting Sphere Track (104)
(148)
(150)
(113)
To Containment Circuit
From Containment Circuit
High-Speed Switches
From Power Grid
From Generator
Capacitor Bank (105)
High-Speed Switches
To Power Grid
To Generator

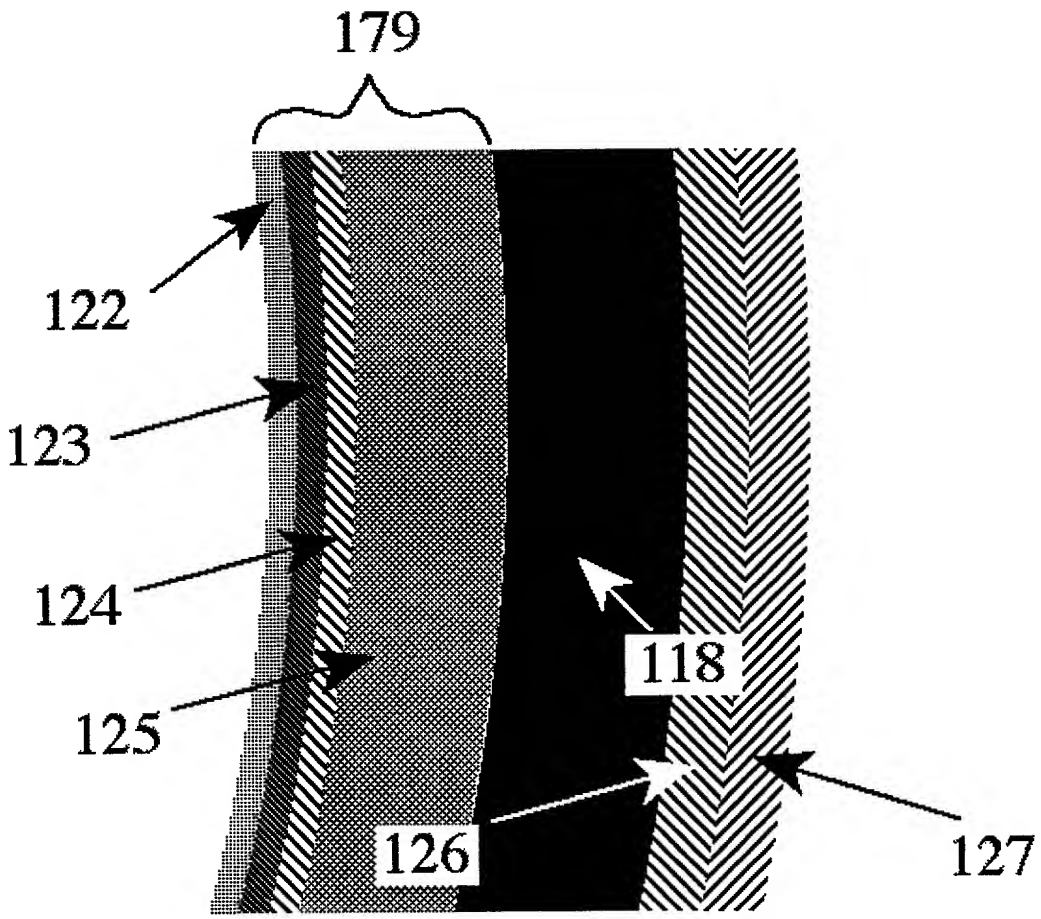


Figure 69

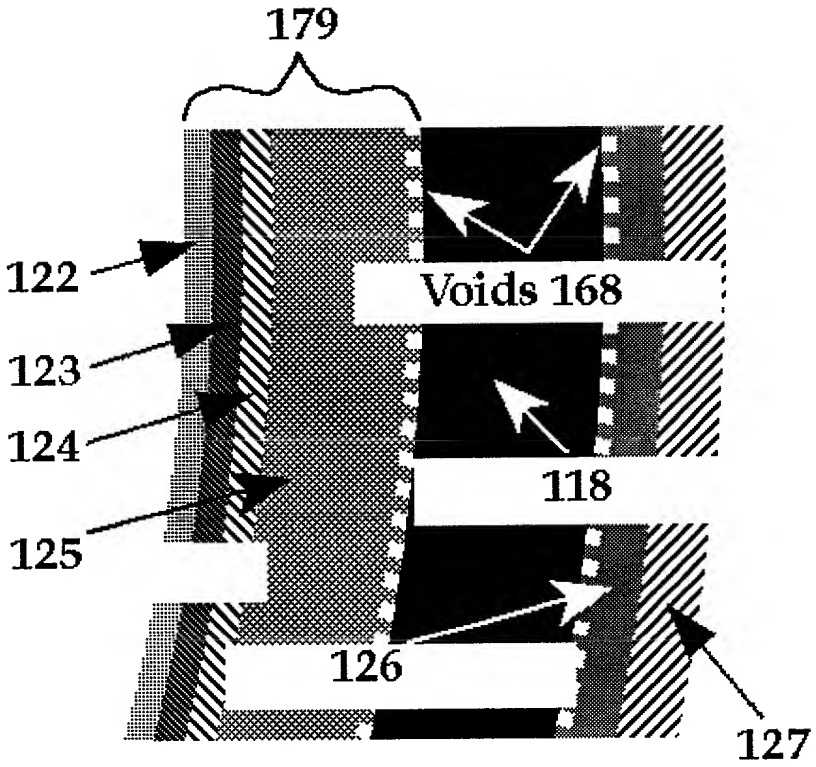


Figure 70

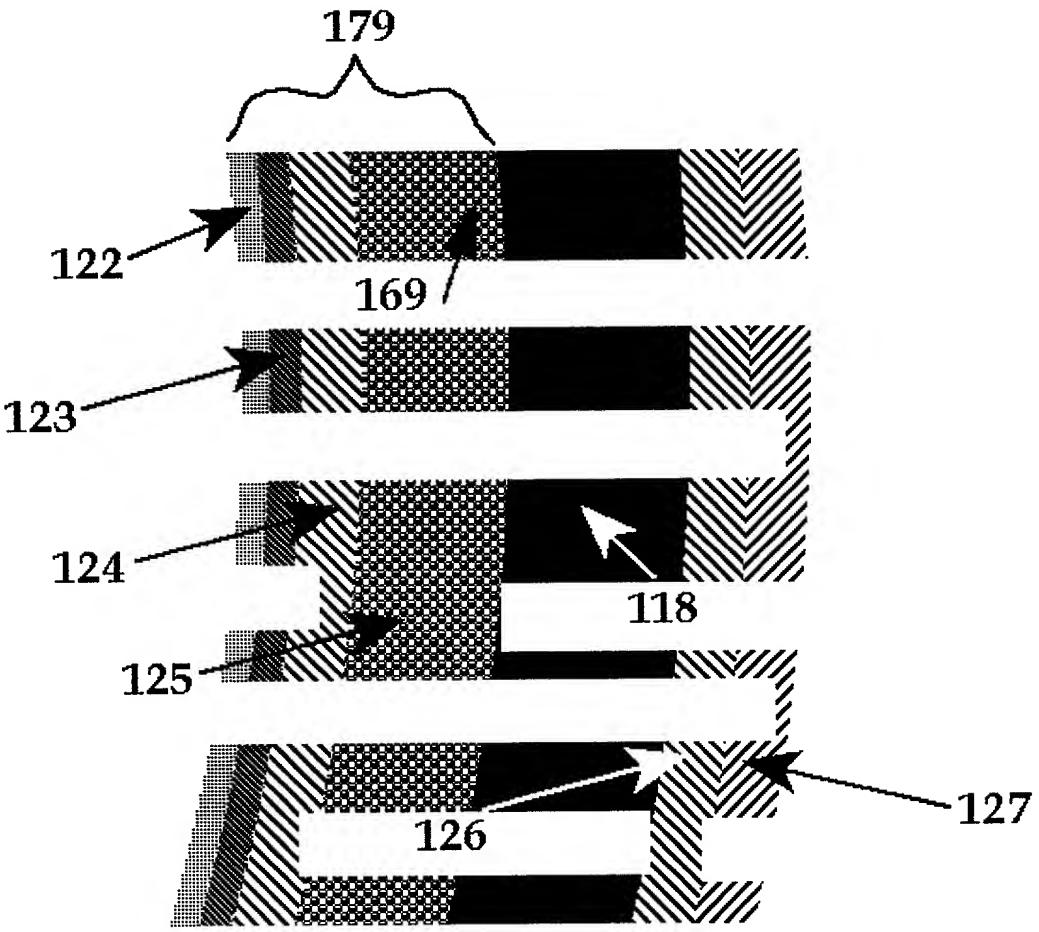


Figure 71

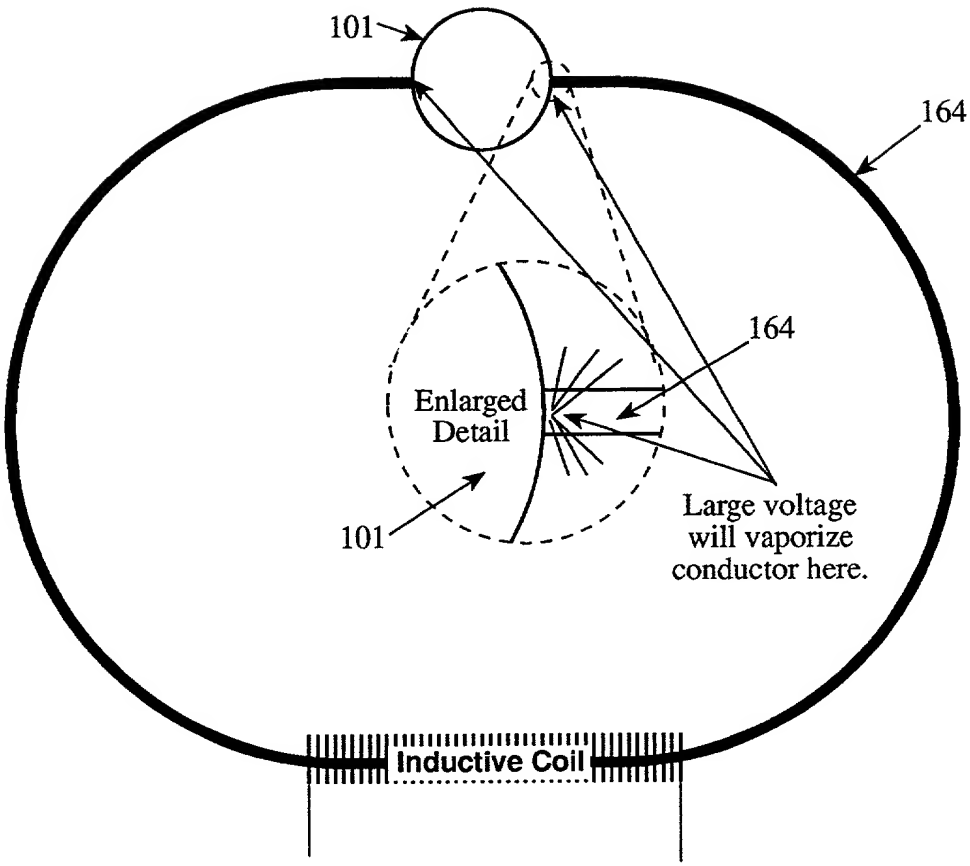

101
164
164
Enlarged
Detail
101
Large voltage
will vaporize
conductor here.
Inductive Coil

Figure 72

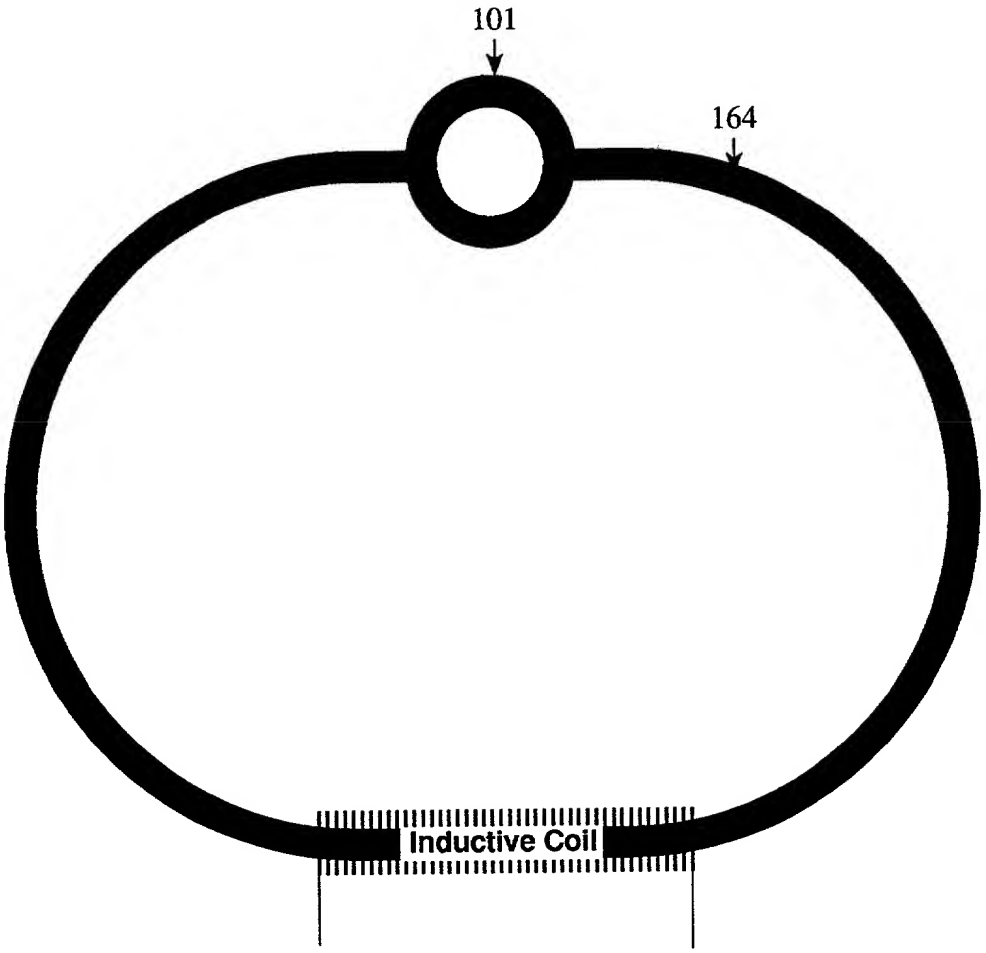


Figure 73

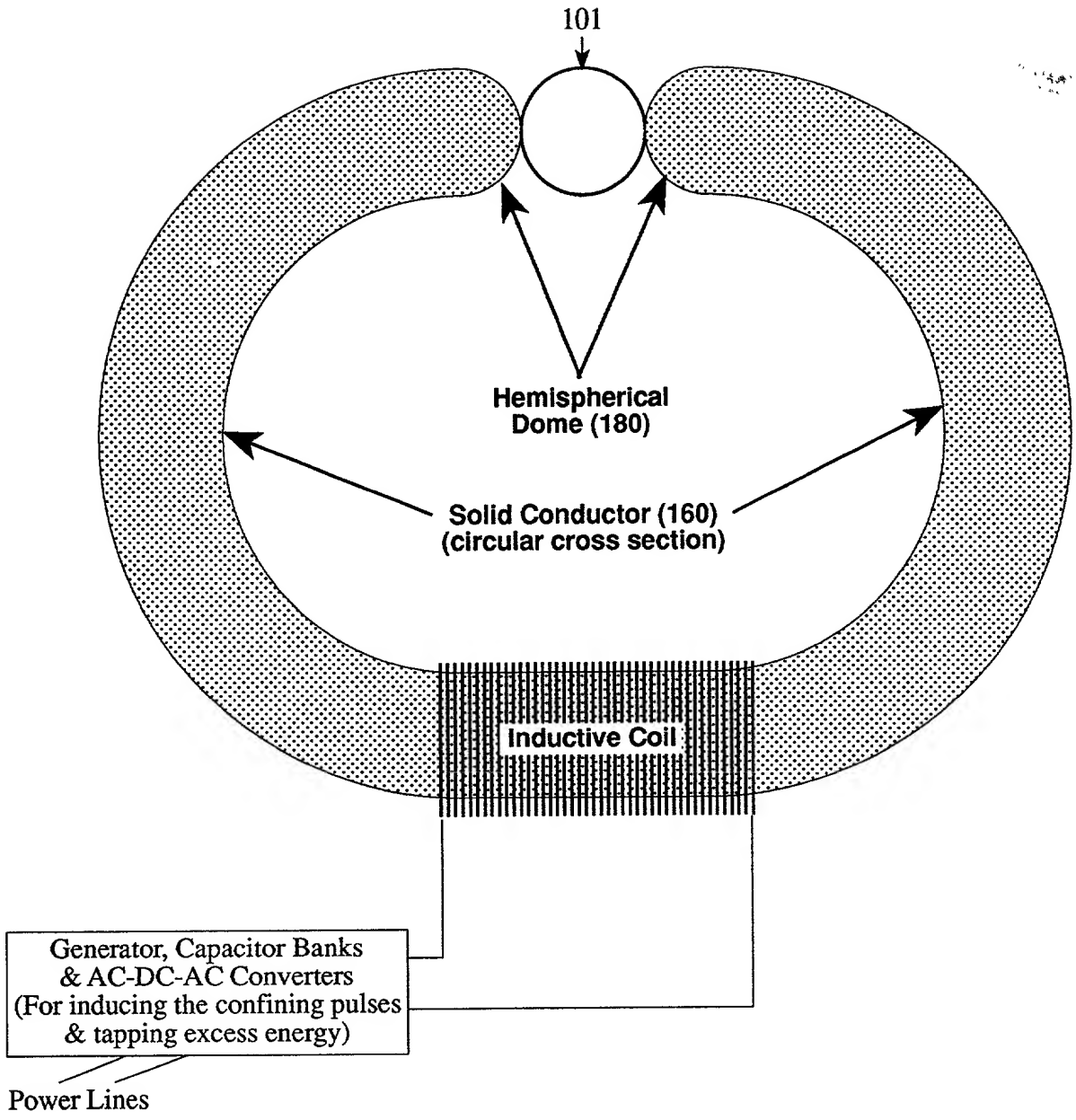

101
Hemispherical
Dome (180)
Solid Conductor (160)
(circular cross section)
Inductive Coil
Generator, Capacitor Banks
& AC-DC-AC Converters
(For inducing the confining pulses
& tapping excess energy)
Power Lines

Figure 74

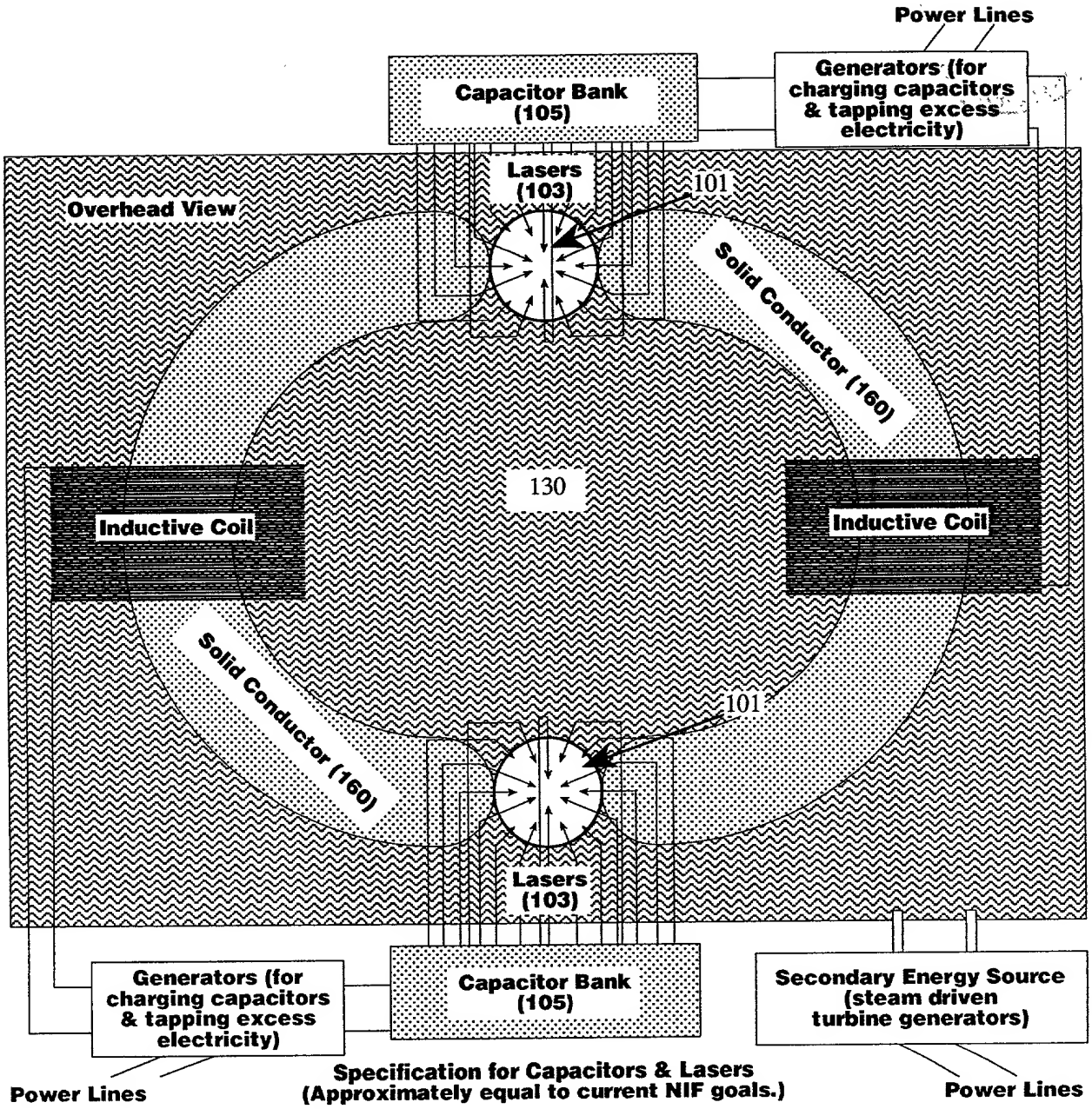

Power Lines
Capacitor Bank (105)
Generators (for charging capacitors & tapping excess electricity)
Lasers (103)
101
Overhead View
Solid Conductor (160)
130
Inductive Coil
Inductive Coil
Solid Conductor (160)
101
Lasers (103)
Generators (for charging capacitors & tapping excess electricity)
Capacitor Bank (105)
Secondary Energy Source (steam driven turbine generators)
Power Lines
Specification for Capacitors & Lasers (Approximately equal to current NIF goals.)
Power Lines

Figure 75

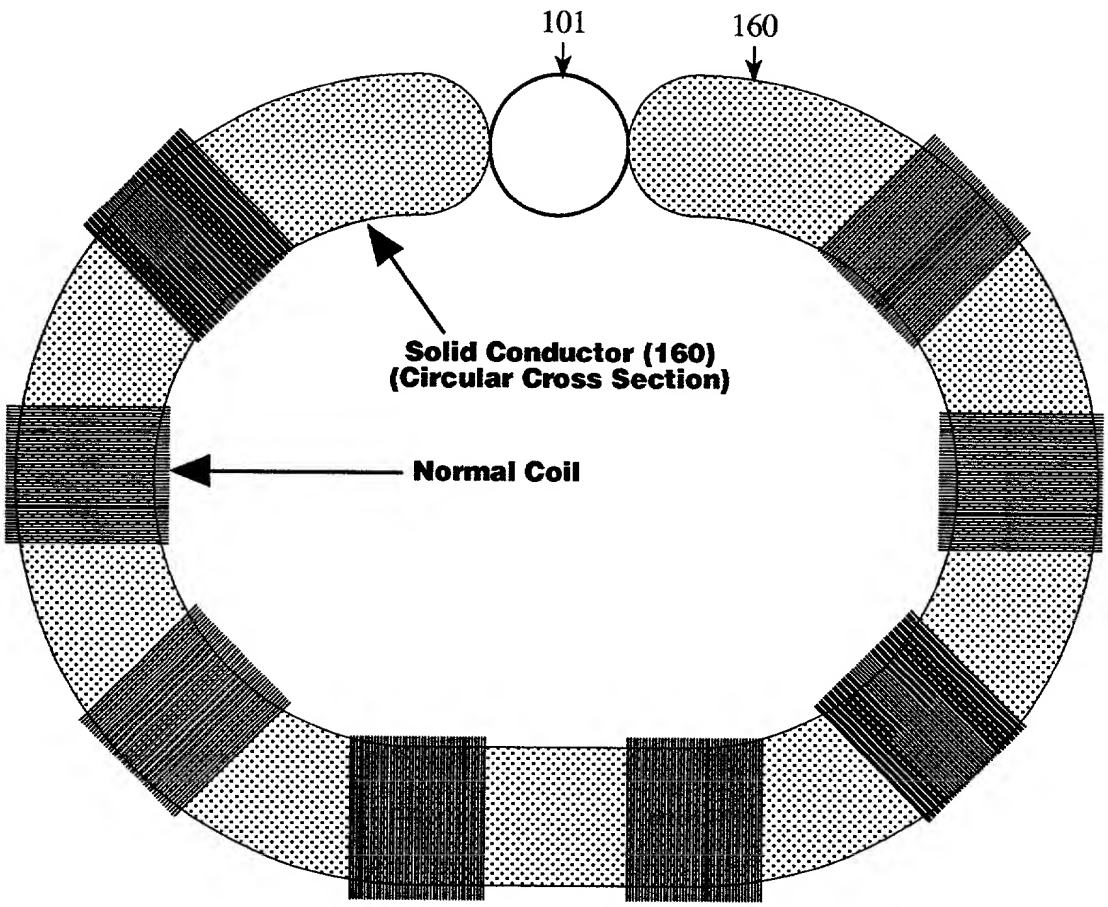

101
160
Solid Conductor (160)
(Circular Cross Section)
Normal Coil

Figure 76

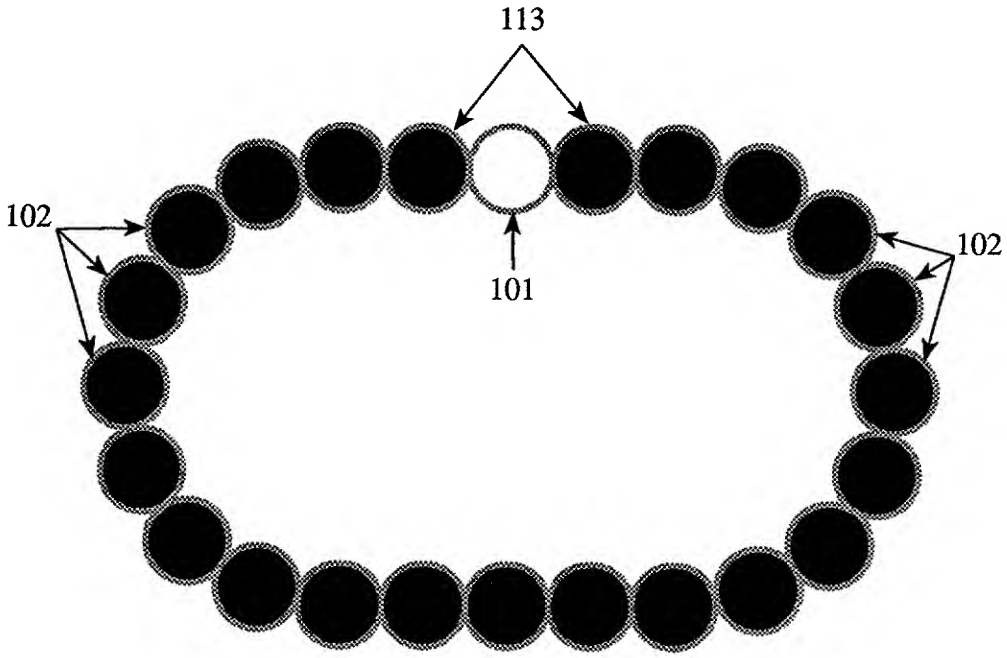


Figure 77

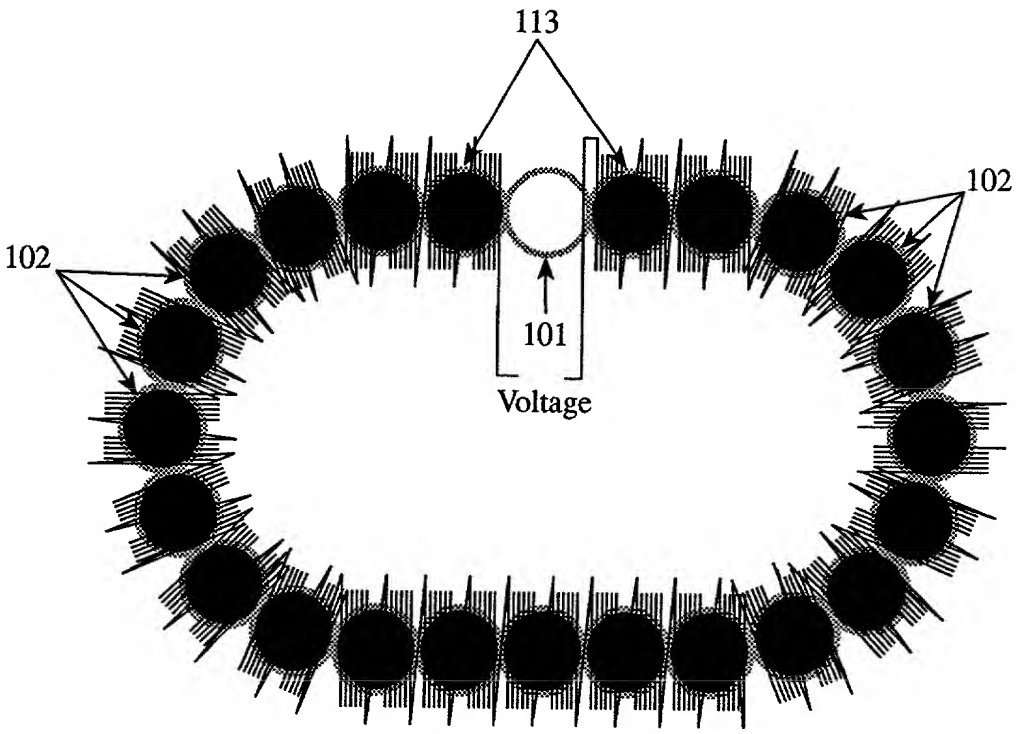


Figure 78

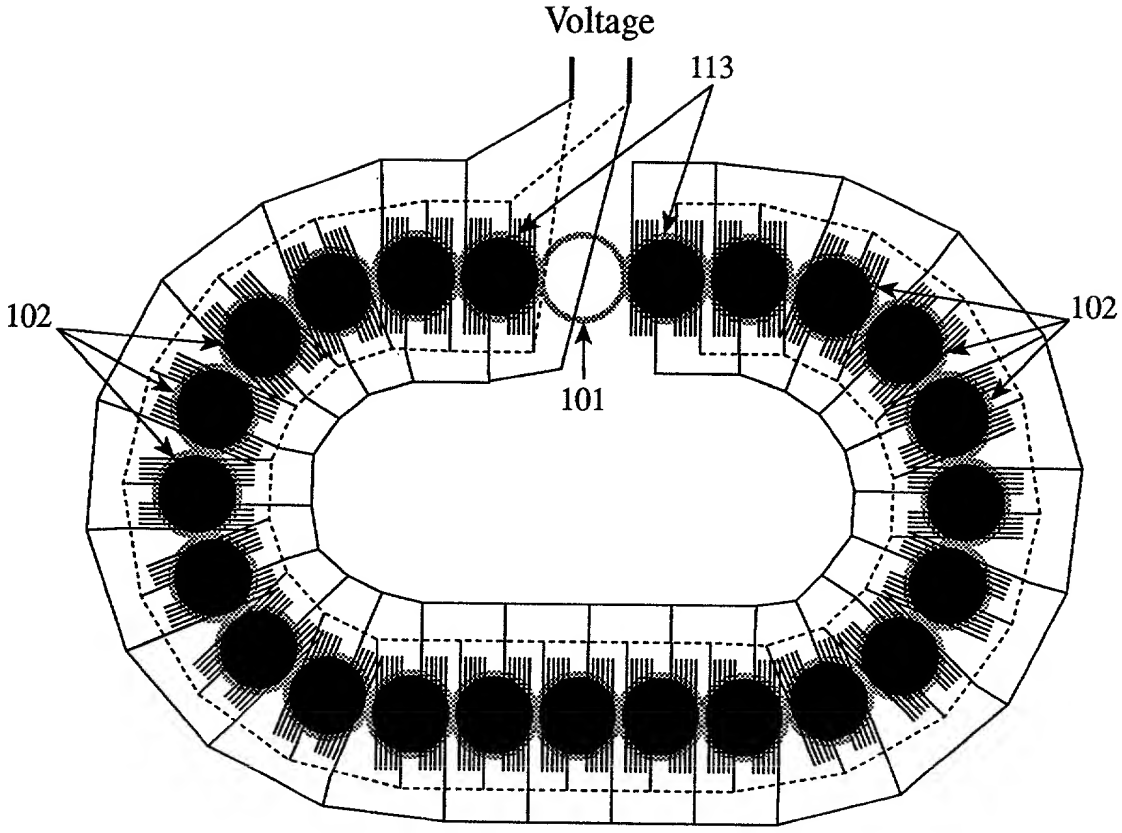


Figure 79

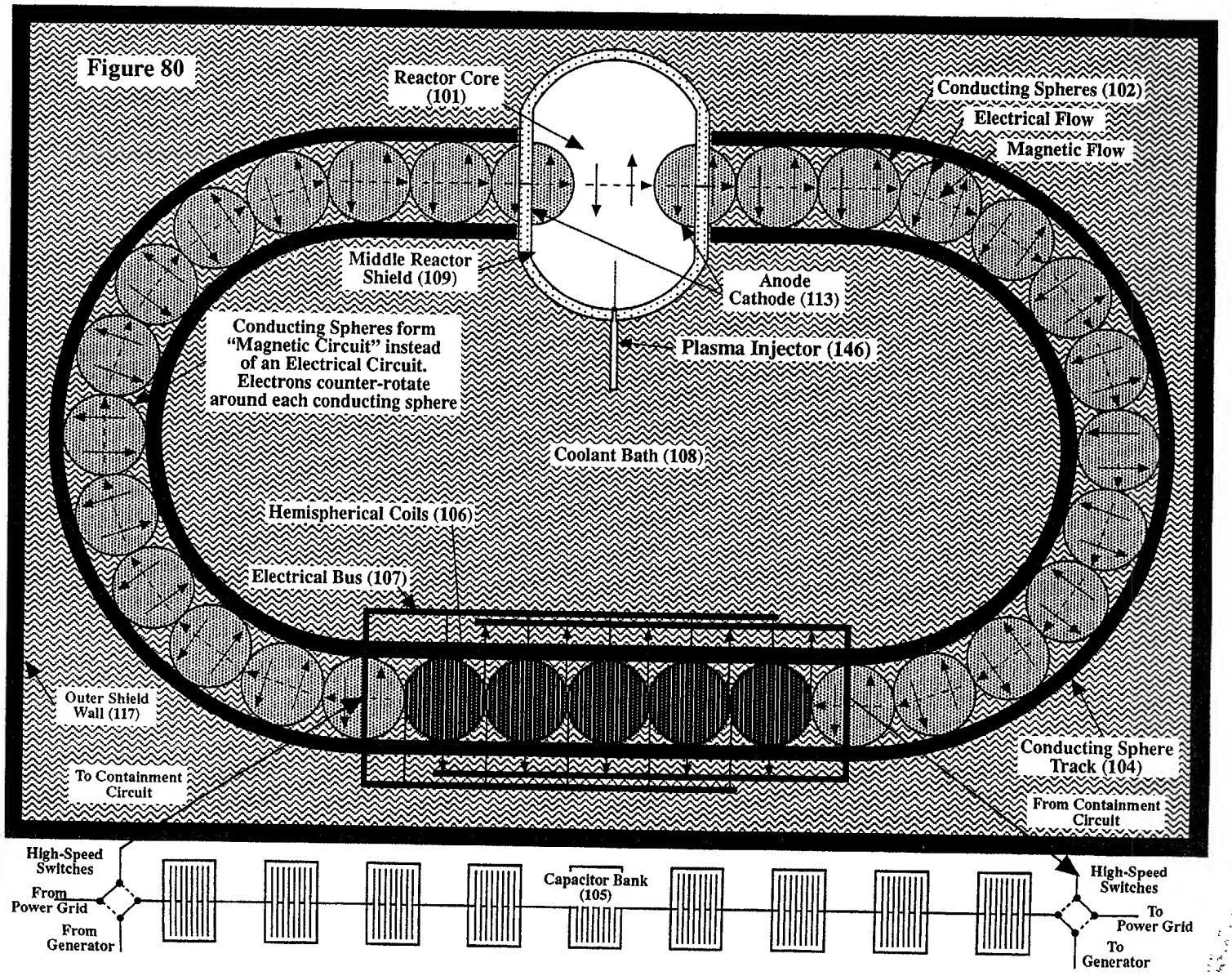


Figure 80
Reactor Core (101)
Conducting Spheres (102)
Electrical Flow
Magnetic Flow
Middle Reactor Shield (109)
Anode Cathode (113)
Conducting Spheres form "Magnetic Circuit" instead of an Electrical Circuit. Electrons counter-rotate around each conducting sphere
Plasma Injector (146)
Coolant Bath (108)
Hemispherical Coils (106)
Electrical Bus (107)
Outer Shield Wall (117)
To Containment Circuit
Conducting Sphere Track (104)
From Containment Circuit
High-Speed Switches
From Power Grid
From Generator
Capacitor Bank (105)
High-Speed Switches
To Power Grid
To Generator

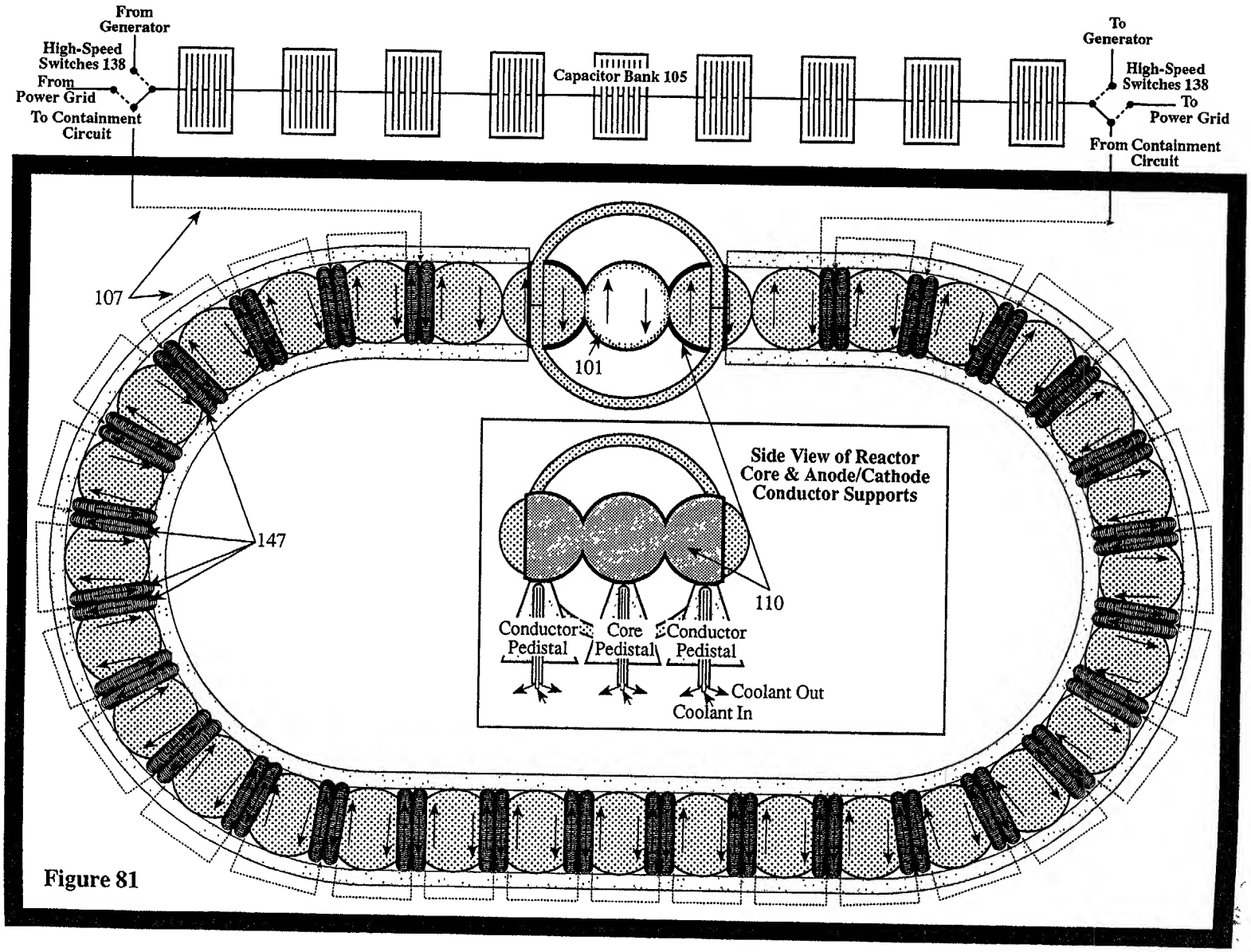
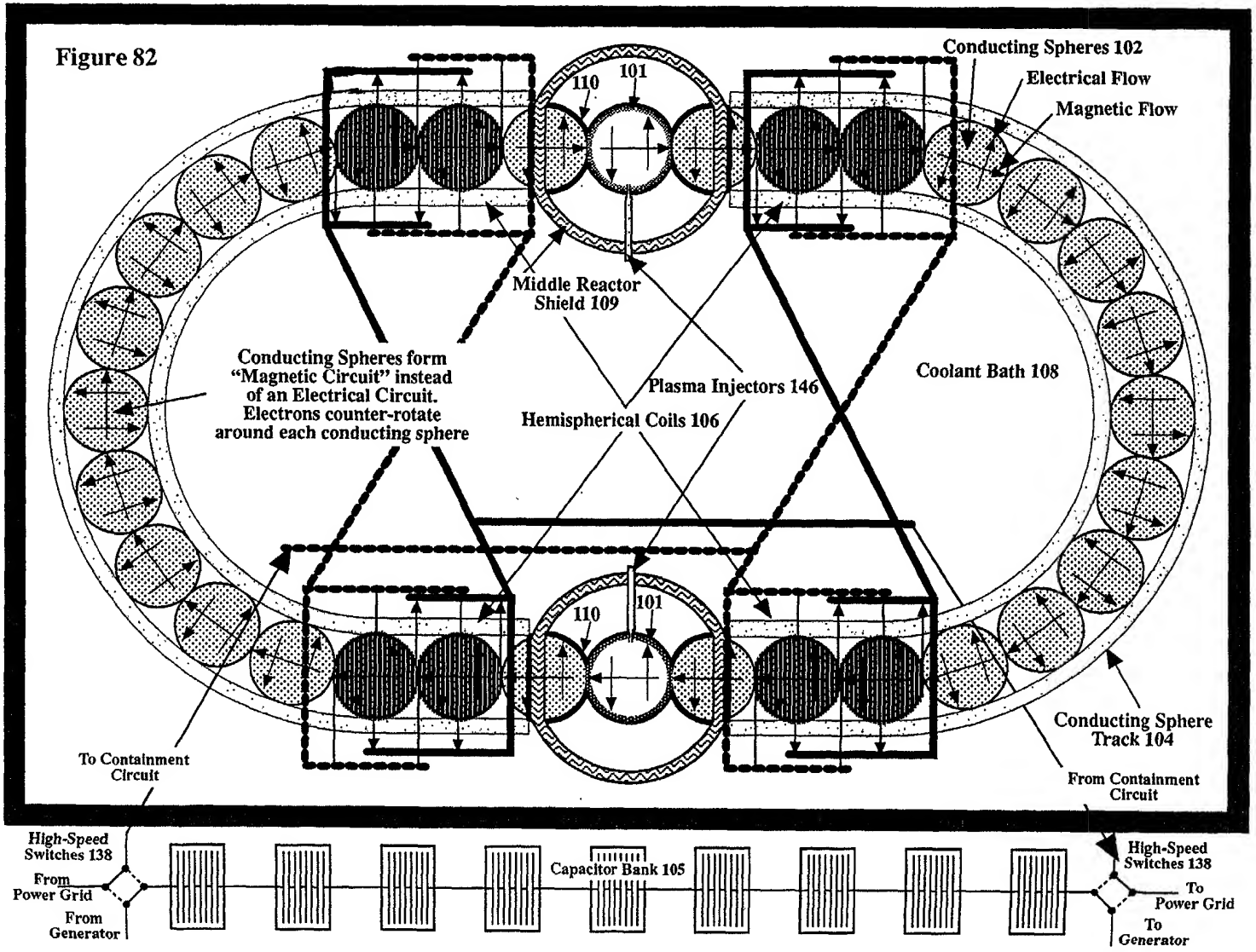
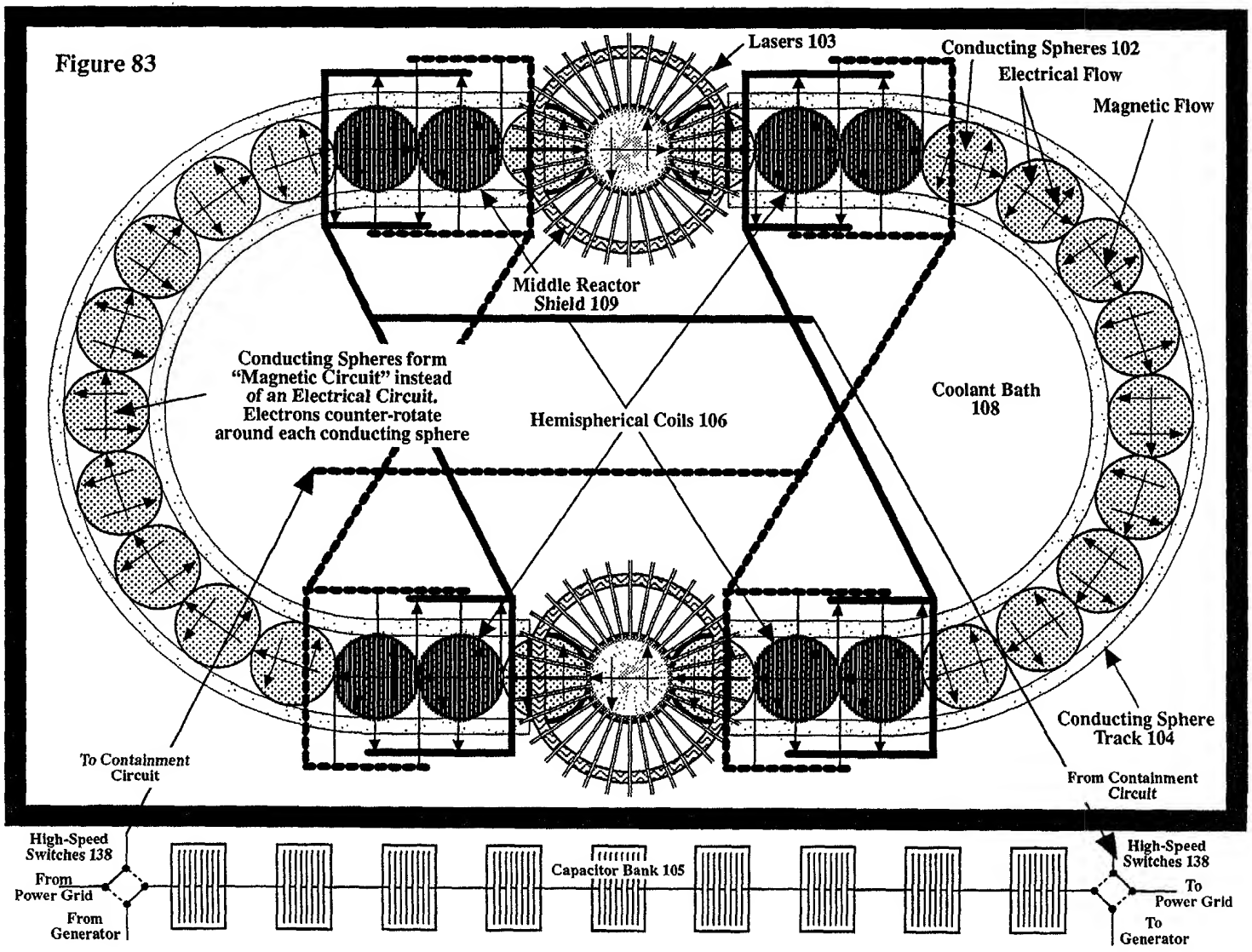

From Generator
High-Speed Switches 138
From Power Grid
To Containment Circuit
Capacitor Bank 105
To Generator
High-Speed Switches 138
To Power Grid
From Containment Circuit
107
101
147
Side View of Reactor Core & Anode/Cathode Conductor Supports
110
Conductor Pedistal
Core Pedistal
Conductor Pedistal
Coolant Out
Coolant In

Figure 81

Figure 82


Conducting Spheres 102
Electrical Flow
Magnetic Flow
110
101
Middle Reactor Shield 109
Conducting Spheres form "Magnetic Circuit" instead of an Electrical Circuit. Electrons counter-rotate around each conducting sphere
Plasma Injectors 146
Hemispherical Coils 106
Coolant Bath 108
110
101
Conducting Sphere Track 104
To Containment Circuit
From Containment Circuit
High-Speed Switches 138
From Power Grid
From Generator
Capacitor Bank 105
High-Speed Switches 138
To Power Grid
To Generator

Patent Application